THE

BANKERS' MAGAZINE,

AND

State Financial Register.

VOL. III. AUGUST, 1848. NO. II.

BIOGRAPHICAL NOTICE OF ELI WHITNEY.

BY JAMES WYNNE, M. D.

For the Bankers' Magazine.

It is remarkable to what seemingly trivial circumstances mankind frequently owes the most important inventions in mechanics. Who at the time could have imagined that two such small events as the witnessing of the drawing out of a heated bar of iron between rollers, by Arkwright, and the assemblage of a small company of cotton planters at the residence of a lady, under whose kind patronage Whitney, a young and ardent adventurer upon the sea of human life, then was, would have established an era in the cultivation and manufacture of cotton, and have furnished the world with one of the most extraordinary exhibitions of mechanical development known in the entire history of the industrial arts. Yet to these very circumstances England and the United States are indebted for the present extensive culture and manufacture of that article which has worked so important a revolution in their labor, and contributed so greatly to the prosperity of both. There is a striking parallel in the youthful portion of the lives of the two great men whose names stand out thus prominently in the early history of the growth and manufacture of cotton, who, sprung from the same humble condition in society, and endowed with the same mechanical genius, were prosecuting successfully in different hemispheres, those reciprocal inventions which bear so intimate a relation as to make both necessary for the perfection of either, which it would be pleasing to prosecute. But our business at present is with the American inventor, and we shall therefore leave his English prototype, to enter into some of the details of his highly useful life.

Eli Whitney, the subject of these remarks, furnishes an illustration of the truth, that a man may possess great genius, be an inventor of the highest order, and yet never write a book. Indeed his early occupations were far from favorable to literary pursuits, and even when at a later period he entered Yale College, as a student, we are unable to perceive that he evinced any great anxiety to excel as a literary man. On the contrary, his heart seems to have been centred in his favorite pursuit of mechanics, and his studies were prosecuted with avidity only when they tended to this point. He is said to have been an excellent mathematician, but was not remarkable for his attainments as a classical scholar.

His father, who resided at Westborough, in Massachusetts, at which place Eli Whitney was born, 8th December, 1765, was a small farmer, and managed by dint of industry to rear an increasing family, frugally yet respectably, for the most part to pursue the same quiet occupation with their ancestor. Whitney's early years were spent in assisting his father and brothers in their agricultural pursuits; but even at this early period of his life he evinced a great fondness for mechanic subjects, and exhibited unmistakable evidences of a high order of inventive genius. As might naturally be supposed, these first attempts were expended in childish inventions. He was always glad to retreat from the labors of the farm, for which he does not appear to have had any great predeliction, to his father's workshop, to busy himself in his favorite occupation. Some amusing incidents are related of this portion of his life: among others it is said that his father having had occasion to absent himself from home for a few days, enquired on his return, as was his custom, into the occupation of his sons during his absence. He received a good account of all of them, except Eli, who, the housekeeper was reluctantly obliged to confess had been engaged in making *a fiddle*. "Alas," said the father with a sight and an ominous shake of the head, "I fear that Eli will have to take out his portion in fiddles." Nor can we marvel much at the parent's forebodings, when we remember how frequent a shift this is with idle and worthless boys. It is not every lad who sets his miniature water wheel at work beneath the little stream of water, that becomes a *Newton* in after life, or that deduces the same philosophic reasons from this apparently trifling amusement which inspired the soul of the great philosopher. It may be well to observe by the way, that this fiddle proved to be a very good one, and made passable music.

Another incident connected with this portion of his life, is that his stepmother (who had recently become so) possessed a set of table knives, which she highly prized, as a superior article of cutlery. Eli informed her that they were well made, but that if he had proper tools he thought he could equal them, with his own manufacture. The step-mother became offended, thinking that he meant to underrate their value, but it so chanced that not long after one of them became broken, and he supplied its place so perfectly that it could not be told from the others, except that it wanted a stamp, which he had not the requisite tools to impart to it. Although but twelve or fourteen years of age, his reputation as a skilful mechanic had now become so general in his father's neighborhood, that the surrounding country people were in the habit of bringing to him mechanical jobs to execute, which he performed with such skill and neat-

ness as always to satisfy, and not unfrequently to astonish his employers.

The inhabitants of the New England states, and more especially those in the class in which Whitney's father was, have always been celebrated for a certain species of thrift, by which they are enabled to turn such circumstances as present themselves to their account. An instance of this is exhibited in the life of Whitney when about sixteen years of age. The revolutionary war by shutting out imports to a great extent, raised the price of nails, which were much in demand, and exclusively wrought by hand. Whitney easily persuaded his father to furnish him with the necessary implements, and to allow him to engage in their manufacture. The father took good care, however, to reserve to himself all the profits resulting from his son's labor. We find him engaged in this occupation for upwards of two years, until the termination of the war, which by bringing foreign imports in competition with him, greatly reduced the profits of his laqor and induced him to relinquish the business.

About this period he determined to acquire a collegiate education, and set himself steadfastly to the task of accomplishing this object. By dint of much perseverance and labor, both as a mechanic and in conducting a small school, he succeeded in procuring the means necessary to defray his expenses, as well as the education requisite to enable him to enter the Freshmen class at Yale College, in the spring of 1789, when about twenty-four years of age. It is needless to say that young Whitney, who was opposed in his scheme of college education by his family, and thus obliged to procure, by his own individual exertions, the means of sustaining himself while engaged in its prosecution, was a diligent and laborious pupil. In his studies as elsewhere, his favorite propensity manifested itself. The classics and polite literature were studied by him from necessity, but mathematics, and especially those branches immediately relating to mechanics, from choice. In the former he was never remarkable, in the latter he was a proficient. With the chaste diction, and exquisite poetical imagery of the ancient writers, he had little sympathy. The sweet toned sentences of Theocritus, the pleasing harmony of Virgil, or the graceful measure of Horace, failed to inspire his mind with their lofty and soul-stirring aspirations. Nor could he drink in those lessons of wisdom which flow in such abundant streams into the minds of others differently constituted, from the perusal of the works of Aristotle, Quintilian, Cicero and Tacitus. His mind possessed too much mathematical precision to derive gratification from these writers, and he gladly turned from them to bury himself in the abstruse theories of Euclid, Hugens, Newton and Euler.

During his continuance at college, he did not abandon his craft in practical mechanism, which he frequently applied to very useful purposes. One of the teachers mentioning on one occasion, his regret at being unable to exhibit to the class a very interesting experiment, on account of the condition of the philosophical apparatus, which no mechanic in the village was able to rectify, young Whitney volunteered the task, and soon placed the apparatus in complete order, very much to the gratification of his teachers, who warmly commended him for it.

He graduated in 1792, and in the autumn of the same year entered into an engagement with a gentleman who resided in the state of Georgia, to

become a private tutor to his children. He shortly after set out for that state, in order to comply with his engagement. Unfortunately he found the position he had left his home to fill, occupied by another, and he was thus left without occupation or means, and almost friendless. It had been his good fortune, however, to accompany a southern lady who, with her family, was returning from a northern tour, from New York to Savannah. This lady, who was the widow of General Greene, a distinguished officer of the Revolution, took a deep interest in the welfare of Whitney, and no sooner heard of his disappointment, than she kindly proposed to him to make her house his home, and immediately to commence the study of the law, as was his original intention. Whitney accepted this offer, and took up his residence with her accordingly.

An incident occurred here which completely changed all his views for life in relation to himself, and called out that invention which will in all time rank his name among the greatest benefactors of his kind, and place him in the foremost rank of inventive geniuses. It is this: a party of gentlemen from the northern part of the state, who were on a visit to Mrs. Greene, were deprecating the almost perfect impracticability of so separating the seed from the upland cotton as to make its cultivation an object of importance. Mrs. Greene, who had on more occasions than one, witnessed Whitney's wonderful mechanical genius, advised her guests to appeal to him, assuring them at the same time, that he was able to accomplish whatever mechanical task he sat himself about. The guests and the future inventor of the cotton-gin, were accordingly made acquainted with each other, and he was urged by them, as well as by his kind friend and patroness, to undertake the task. He modestly disclaimed any great knowledge of mechanics, but nevertheless agreed to make the attempt. From the impulse thus imparted to his mind he never swerved, but continued to prosecute it with untiring zeal, until his labors were crowned with a success which even the inventor himself could hardly have dared to anticipate.

His first object was to procure a sample of the upland cotton, containing the seed, which as yet he had never seen. For this purpose he made a visit to Savannah, and having succeeded in procuring the cotton in this condition, he returned to commence his experiments upon it. His intentions were confined to his patroness, Mrs. Greene, and Mr. Miller, a New England gentleman, who was then a tutor in Mrs. Greene's family, and who afterwards became her husband. This gentleman not only warmly entered into his views, but on the completion of his model, became his partner in business, and furnished him with the capital necessary to carry on his operations. A separate room was assigned to him as his workshop, into which no persons were admitted except his two confidants, Mrs. Greene *(who appears to have kept his secret,)* and Mr. Miller. Within this workshop, as secretly and mysteriously engaged as the ancient alchymist in his charmed laboratory, he passed the winter months in devising and perfecting his machine.

He thus speaks of his operations at this time, in a letter addressed to Mr. Jefferson, then Secretary of State, dated 21 Nov., 1793: "Within about ten days after my first conception of the plan, I made a small, though imperfect, model. Experiments with this encouraged me to make

one on a larger scale; but the extreme difficulty of procuring workmen and proper materials in Georgia, prevented my completing the large one until some time in April last." The model machine, on a scale sufficiently large to test its practicability, was made entirely with his own hands, and with the rudest instruments. He was even obliged to draw out the wire which entered into its composition,—no wire being sold at that early day in Savannah.

In the spring of 1793, he had so far tested his machine as to place its value beyond a question of doubt, and his two friends were burning with impatience to proclaim a result so gratifying to himself, and so important to those engaged in the occupation of cotton planting. Accordingly, Mrs. Greene invited a number of guests, from different parts of the state, to her house, and the charmed doors of his sacred retreat being thrown open, he exhibited for the first time in public, the wonder-working powers of his new invention, which astonished and delighted those who witnessed its operations.

In order to understand the value of Whitney's invention, it will be necessary to give the reader a cursory view of the condition of the cotton growing interest at the time of its appearance. The cotton plant, (Gossypium,) is indigenous to many warm countries, and it has been cultivated and spun and wove into clothing, in India and the islands of the Indian ocean, from periods of the remotest antiquity. Pliny speaks of the cotton used by the Egyptians in his day, and Columbus relates that the natives of the American continent possessed cotton clothes on his first discovery of the Western world. The most extensive manufacturers of cotton, however, during the middle ages, were the Spaniards; and at that period, when Spain ranked foremost in civilization and refinement, the delightful plains of Seville and Granada were no less celebrated for their picturesque beauty and high state of cultivation, than for the excellence of their cotton fabrics. England, at present the great manufacturing nation of the world, did not embark in this business before the middle of the seventeenth century. Its progress was exceedingly slow before the patent of Arkwright for spinning was obtained in 1769, and even with this additional aid its advance was far from rapid, until the discovery of Whitney, by rendering its culture an object of importance to the American states, at once inspired new life into this branch of English industry.

An idea of the estimate in which the cultivation of cotton was held at the termination of the last century, by our government, may be formed from the circumstance that Mr. Jay, our then Minister to England, in negotiating a commercial treaty with that government, permitted an article to be introduced into the treaty, in which the export was prohibited in American vessels, from the United States, of such articles as had formerly been supplied by the West Indies. Cotton was included among these articles; its export at that period not being considered of importance enough attract the particular attention of our distinguished minister.

There was at that period, as now, two distinct species of cotton grown in the United States, known by the appellations of the long and short stapled cotton. The best specimens of the former were called sea-island cotton, and were cultivated on the sandy islands which dot the shores of the lower Carolina and Georgia. It is supposed that the spray of the

sea exercises a peculiar influence upon it, rendering its filaments longer and more silky, for when the plants are transplanted beyond the influence of the salt water, these qualities deteriorate. The *upland cotton*, or that grown in the interior, is known by the name of *short staple* or *bowed cotton*. This latter appellation was given to it on account of the process formerly made use of to separate the seeds from the filaments. This was by striking masses of the cotton pods violently with bows, to which strings were attached, for the purpose of loosening them before attempting to separate the seeds by hand. This cotton also goes by the name of green seed cotton, which adheres with much more tenacity to the filaments of cotton than the black seeds, which characterize the sea-island species. The soil adapted to the growth of the sea-island cotton, is necessarily limited, while almost every acre of land in the Southern tier of the United States, is fitted for the culture of the short stapled cotton. It was for the purpose of separating the seed from this latter that the *gin* of Whitney was invented, and on its success depended the applicability of the entire range of southern states to the culture of this article.

It is not surprising, therefore, that this invention should have been hailed with the greatest raptures of delight, and that those who witnessed its capacity to perform in a single day the labors of many months, should have indulged in the most brilliant imaginings as to the future prospects of the cotton-planting interest of the United States; nor could it be otherwise than that its young inventor should have felt almost within his grasp that golden harvest which all were assured would flow in upon him through the medium of his auspicious and well-timed invention. Who then could have imagined that this brilliant picture was soon to be succeeded by one blackened with the clouds of misfortune and disappointment;—but we anticipate.

Whitney's machine consists of a cylinder whose surface is covered with iron teeth about three-fourths of an inch apart, presenting a serrated appearance. During the revolutions of the cylinder, these teeth seize upon the cotton wool, and draw it through the openings in a number of iron straps placed in contact with them, from the hopper into which the cotton is placed. These openings are made too narrow to permit the seeds to pass through, and they are brushed from the plates into a receiver below. The revolving cylinder, with the cotton attached, meets with a second cylinder, moving in an opposite direction, supplied with brushes, which remove the cotton from the teeth of the first cylinder. The teeth of the first gins were made of wire. The execution of this machine is as effective as its construction is simple. It may be worked by men, oxen or water. A gin worked by oxen will clean from 600 to 900 lbs. of cotton in a day. Before this invention it required the labor of a hand a day to separate the seed from fifty pounds of cotton.

Mr. Whitney, in a correspondence between himself and Fulton, with great justice remarks: "My invention was new and distinct from every other—it stood alone. It was not interwoven with any thing known before; and it can seldom happen that an invention or an improvement is so strongly marked, and can be so clearly and specially identified."

It had been deemed prudent not to exhibit the machine to the public

until Mr. Whitney had secured his right to it by patent; but before he could complete his model, his workshop was broken open and the machine stolen. In this manner it became public before it was patented, and a horde of imitators immediately set to work to manufacture new ones upon his principle, but varying in some slight degree in order to avoid prosecutions under a patent. Considerable delay occurred in obtaining the patent, for although he presented his petition to the government, praying for its issue on the 20th June, 1793, it was not until nearly the close of that year that letters were issued confirming his right. In the meantime, a number of persons were engaged in manufacturing the gins, and were boldly claiming a title to the invention. By an arrangement which had been entered into between Mr. Miller (who had become his partner,) and himself, he was to repair to New England immediately after filing his petition with the government for his patent, and commence the manufacture of gins, to meet the demand in Georgia. Unfortunately they did not confine their views to the manufacture and sale of the gin itself, but aimed to engross the entire business of cleaning the cotton to themselves. The cotton planters were perfectly willing for this, and the following year planted greatly increased crops of cotton, on the faith that they would be made marketable by the gin. The profits to be derived from the gin, one-third of the entire cotton crop, which was then selling at twenty-five cents per pound, seemed to open to them a road to magnificent and speedy wealth; but a series of misfortunes occurred which closed up their immediate avenue to prosperity, and involved their concerns in a long train of perplexities and embarrassments.

In the spring of 1794, Whitney visited Georgia, for the purpose of effecting arrangements to clean the cotton crop from seeds with such machines as he had previously caused to be made. He returned shortly after to New Haven, Conn., and with the limited means at his command set about preparing gins to meet the demand upon them, but so greatly had the crop increased, that he found himself unable to do so. The planters were therefore glad to resort to other machines, and in a short time they met with a formidable competition in several others based upon Whitney's original principle. The most pressing embarrassment under which they labored, was a want of money; for although Mr. Miller had advanced some means, they seem, from the correspondence which was carried on between them at this time, to have been obliged to resort to all manner of expedients to supply the expenditures incident to the manufacture of the gins, frequently borrowing it at the most ruinous rates of interest. To add to his misfortunes, while on a visit to New York, he received information that his shop, together with all its contents, including a number of newly manufactured machines, and all his books and papers, had been consumed by fire, by which he was reduced to a state of complete insolvency.

As if to crush every remaining hope, a prejudice was excited in the minds of the manufacturers in England against the cotton cleaned by the gin. It was admitted to be freer from seeds than that picked by hands, but it was said to render the cotton fibre brittle, and thus weaken the texture of the fabric manufactured from it. The manufacturers refused to purchase it, and Mr. Miller writes to Mr. Whitney that "Every one is

afraid of the cotton. Not a purchaser in Savannah will pay a full price for it. Even the merchants with whom I have made a contract for purchasing begin to part with their money reluctantly." Not only policy, but the very existence of their enterprize, dictated to Whitney to repair immediately to England for the purpose of disabusing the minds of the manufacturers on this prejudice against ginned cotton. Yet so straitened were their finances at this period, that neither Whitney nor his partner appear to have retained sufficient credit to borrow the sum of money necessary to defray the expenses of the journey. His anxiety to visit England was so great, that he was five or six times on the point of departure during the year 1796, but was as frequently deterred by disappointments in obtaining the requisite means, and was finally obliged to abandon the journey altogether. As the hopes of accomplishing this undertaking diminished, his partner writes to him from Georgia: "In the event of this failure, I can only take to myself the one half the blame which may attach itself to our misplaced confidence in the public opinion. I confess myself to have been entirely deceived in supposing that an egregious error, and a general deception, with regard to the quality of our cotton, could not long continue to influence the whole of the manufacturing, the mercantile, and the planting interests, against us. But the reverse of this fact, allowing the staple of our cotton to be uninjured, has, to our sorrow, proved true, and I have long apprehended that our ruin would be the inevitable consequence." [*Silliman's Journal.*]

The letter from which this extract is made, bears date in the spring of 1797, at which period they appear to have had no less than twenty-eight gins, calculated for horse and water power, lying idle for want of employment, in the State of Georgia. The only hope of restoring the value of this property, upon which had been expended many thousand dollars more than either Whitney or his partner was worth, was in reviving the lost confidence in the cotton ginned by them. So long as the article continued unmarketable the planters hesitated to make use of the machine, and the merchants to purchase it. The hope indulged in Mr. Miller's letter, that this error would not long influence the whole of the manufacturing interest against them, at last began to be realized. A reaction, as gratifying as it was sudden, now set decidedly in favor of the cotton cleaned by the gin, and the merchants, who had but a short time previous looked with suspicion upon the article, eagerly sought it out as most desirable for the manufacturers' purposes. Their gins were again restored to partial employment, and fortune, which had so long withheld its favors, seemed at last about to dawn upon their hopes in cloudless brilliancy.

But here, too, as at every previous step of their progress, they were doomed to encounter bitter disappointments. The difficulties in procuring the gins in the first instance, and the tide of opposition which had set in against them in the second, encouraged a large number of unprincipled persons to attempt a violation of their patent, on the most flimsy pretences. They therefore found the employment of their gins interfered with by those who had set up the trade without legal authority, and were compelled to institute a series of harrassing and interminable lawsuits against the infringers of the patent, to protect themselves. The

first of these trials, to the surprise not only of the plaintiff, but the defendant, was given against Whitney's patent. The popular opinion seemed to be with them, and the judge charged the jury to bring in a verdict in favor of the plaintiff, yet after an hour's consultation they rendered a verdict against the instructions of the court, on the ground that the violation of the law consisted in the several items of "making, devising, and using, or selling," while their charge consisted in "using" alone. The failure of this suit increased the encouragement to disregard the patent, and in a short time the whole cotton-growing portions of Georgia and South Carolina, became flooded with surreptitious gins to such an extent as not only to preclude the use, but even to prevent the sale of the original gin.

The next step taken by Whitney was, to appeal to the legislature of South Carolina to purchase his patent for the state, to which measure he had been urged by a number of influential citizens, for one hundred thousand dollars. The result of this appeal may be learned from a letter addressed by him to a friend on the subject, immediately after the adjournment of the session of the legislature which acted on the subject:

"COLUMBIA, SOUTH CAROLINA, *Dec.* 20, 1801.

"*Dear Stebbins,*

"I have been at this place a little more than two weeks, attending the legislature. They closed their session at 10 o'clock last evening. A few hours previous to their adjournment, they voted to purchase, for the State of South Carolina, my patent right to the machine for cleaning cotton, at fifty thousand dollars, of which sum, *twenty thousand is to be paid in hand, and the remainder in three annual payments, of ten thousand dollars each.*

"This is selling the right at a great sacrifice. If a regular course of law had been pursued, from two to three hundred thousand dollars would undoubtedly have been recovered. The use of the machine here is amazingly extensive, and the value of it beyond all calculation. It may, without exaggeration, be said to have raised the value of seven-eighths of all the three Southern States from fifty to one hundred per cent. We get but a song for it in comparison with the worth of the thing; but it is *securing* something. It will enable Miller & Whitney to pay all their debts, and divide something between them. It establishes a precedent which will be valuable as it respects our collections in other States, and I think there is now a fair prospect that I shall in the event realize property enough to render me comfortable, and in some measure independent.

"Though my stay here has been short, I have become acquainted with a considerable part of the members of the legislature, and of the most distinguished characters in the State. My old classmate, H. D. W., is one of the Senate. He ranks among the first of his age in point of talents and respectability. He has shown me much polite attention, as have also many others of the citizens."

Truly your friend,

ELI WHITNEY.

J. Stebbins, Esq.

The States of North Carolina and Tennessee, each of which had now directed their attention to the culture of cotton, seemed to be willing to award him a meed of justice, and after numerous public meetings in both of these States, at one of which the late president, Andrew Jackson, presided, the subject was formally brought before both legislatures. The legislature of North Carolina laid a tax of two shillings and six pence on every saw used in ginning cotton, for five years' to be collected by the State and to be paid to Whitney. The tax levied by the State of Tennessee was thirty-seven and a half cents on every saw used in the State,

to be continued for four years, and collected as in the State of North Carolina.

Thus after so many years of toil and disappointment, in which thousands of individuals had become enriched through the medium of his invention, the projector seemed on the eve of realizing some substantial compensation for his labors, and reward for his genius. But here too, the sparkling cup of prosperity was presented to his parched lips, to be snatched away erehe could quaff its vivifying draught. The State of South Carolina not only suspended the payment of the sums yet due under its former law, but directed that a suit should be instituted against Whitney and his partner, for the recovery of the money already paid to them. The grounds of this second law, were first, that it was a matter of doubt whether the gin of Whitney was an original invention, and second his failure to comply with the law furnishing within a specified time two model machines to the State. This second law was subsequently repealed, and full justice was awarded to him by the State, but the blow which this act of the legislature inflicted upon him was severely felt. The States of North Carolina and Tennessee, on witnessing the action of South Carolina, wavered in their course, and failed to collect with regularity the tax imposed by their legislatures. In addition to this, the suits, of which some hundred were instituted, were seriously affected, and required greater exertions and a more than reasonable amount of proof to sustain them.

We do not intend to follow Mr. Whitney through his numerous and never ending law suits, but will content ourselves with giving the opinion of Judge Johnson, which has been frequently quoted, as setting forth clearly and concisely the facts of the case, and which with equal force apply to all the others. The case in which this opinion was delivered was that of Whitney vs. Fort, tried in Savannal, in December, 1807, asking for an injunction.

"The complainants, in this case, are proprietors of the machine called the saw gin. The use of which, is to detach the short staple cotton from its seed.

"The defendant, in violation of their patent right, has constructed, and continues to use this machine; and the object of this suit is to obtain a perpetual injunction to prevent a continuance of this infraction of complainant's right.

"Defendant admits most of the facts in the bill set forth, but contends that the complainants are not entitled to the benefits of the act of Congress on this subject, because—

1st. The invention is not original.

2d. Is not useful.

3d. That the machine which he uses is materially different from their invention, in the application of an improvement, the invention of another person.

"The court will proceed to make a few remarks upon the several points as they have been presented to their view: whether the defendant was now at liberty to set up this defence whilst the patent right of complainants remains unrepealed, has not been made a question, and they will therefore not consider it.

"To support the originality of the invention, the complainants have produced a variety of depositions of witnesses, examined under commission, whose examination expressly proves the origin, progress and completion of the machine by Whitney, one of the copartners. Persons who were made privy to his first discovery, testify to the several experiments which he made in their presence before he ventured to expose his invention to the scrutiny of the public eye. But it is not necessary to resort to such testimony to maintain this point. The jealousy of the artist to maintain that reputation which his ingenuity has justly acquired, has urged him to unnecessary

pains on this subject. There are circumstances in the knowledge of all mankind which prove the originality of this invention more satisfactorily to the mind, than the direct testimony of a host of witnessess. The cotton plant furnished clothing to mankind before the age of Herodotus. The green seed is a species much more productive than the black, and by nature adapted to a much greater variety of climate. But by reason of the strong adherence of the fibre to the seed, without the aid of some more powerful machine for separating it, than any formerly known among us, the cultivation of it would never have been made an object. The machine of which Mr. Whitney claims the invention, so facilitates the preparation of this species for use, that the cultivation of it has suddenly become an object of infinitely greater national importance than that of the other species ever can be. Is it then to be imagined that if this machine had been before discovered, the use of it would ever have been lost, or could have been confined to any tract or country left unexplored by commercial enterprize? but it is unnecessary to remark further upon this subject. A number of years have elapsed since Mr Whitney took out his patent, and no one has produced or pretended to prove the existence of a machine of similar construction or use.

"2d. With regard to the utility of this discovery, the court would deem it a waste of time to dwell long upon this topic. Is there a man who hears us, who has not experienced its utility? the whole interior of the Southern States was languishing, and its inhabitants emigrating for want of some object to engage their attention, and employ their industry, when the invention of this machine at once opened views to them which set the whole country in active motion. From childhood to age it has presented to us a lucrative employment. Individuals who were depressed with poverty and sunk in idleness, have suddenly risen to wealth and respectability. Our debts have been paid off. Our capitals have increased, and our lands trebled themselves in value. We cannot express the weight of the obligation which the country owes to this invention. The extent of it cannot now be seen. Some faint presentiment may be formed from the reflection that cotton is rapidly supplanting wool, flax, silk, and even furs in manufactures, and may one day profitably supply the use of specie in our East India trade. Our sister States, also, participate in the benefits of this invention; for, besides affording the raw material for their manufacturers, the bulkiness and quantity of the article afford a valuable employment for their shipping.

"3d. The third and last ground taken by defendant, appears to be that on which he mostly relies. In the specification, the teeth made use of are of strong wire inserted into the cylinder. A Mr. Holmes has cut teeth in plates of iron, and passed them over the cylinder. This is certainly a meritorious improvement in the mechanical process of constructing this machine. But at last what does it amount to, except a more convenient mode of making the same thing. Every characteristic of Mr. Whitney's machine is preserved. The cylinder, the iron tooth, the rotary motion of the tooth, the breast work and brush, and all the merit that this discovery can assume, is that of a more expeditious mode of attaching the tooth to the cylinder. After being attached, in operation and effect they are entirely the same. Mr. Whitney may not be at liberty to use Mr. Holmes' iron plate. But certainly Mr. Holmes' improvement does not destroy Mr. Whitney's patent right. Let the decree for a perpetual injunction be entered."

One of the peculiar characteristics of Whitney's mind was a remarkable perseverance in his undertakings, and this characteristic was never more fully developed than in conducting the law suits necessary to secure his patent from innovation. Those who were best acquainted with him at this period, had frequent occasion to remark, this indomitable perseverance under circumstances which seemed about to crush for ever his hopes.

Having thus given a history of the cotton gin, and the difficulties which beset the pathway of its inventor, during the time he was occupied in attempting to bring it into use, we will now proceed to examine some of the statistics of the cotton trade in order to ascertain the real value which this machine bears to this most important branch of American industry.

The cotton crop grown in

The year.	In the world. Millions lbs.	In the U. States. Millions lbs.	Capital invested in its production in the U. States.
1790.	490	2	$3,500.000
1800.	520	48	80,000.000
1810.	555	80	134,000.000
1820.	630	180	300,000.000
1830.	820	385	650.000.000
1840.		790	1287,000.000
1847.		1,026	1731,000.000

From this table, which is based upon the statements of Mr. Woodbury and the Commissioner of Patents, it will be seen that up to the commencement of the present century the cultivation of cotton was far from an important business in the United States, and we have already shown that the value of its culture depended exclusively on the success of some means by which the seed could be easily separated from the filaments of cotton. No sooner, therefore, was it ascertained that Whitney's gin could accomplish this end, than the whole Southern States turned their attention to its culture, and it has gone on steadily increasing until the United States at the present day furnish the larger proportion of cotton consumed in the manufactories of the entire world. Previous to 1790, the United States furnished no cotton to the English manufacturers. During the last year the exports to England amounted to 338 millions pounds, of which 333 millions pounds were the upland growth, whose culture was immediately connected with Whitney's gin.

In England the amount of capital employed in the manufacture of cotton, is estimated to exceed £34,000.000. From the census returns for 1840, we learn that the number of spindles in operation in the U. States are 2,284,631, employing immediately 72,119 persons, having a capital of $51,102.395, and annually producing fabrics valued at $46,350.453.

These statistics demonstrate the immense value of the cotton interest to this country, not only as furnishing a staple which will readily be taken in exchange for the products of the world, but likewise as a means of employing thousands of individuals profitably in its manufacture. How much of the prosperity which has flowed in upon this country through the agency of its cotton trade, is due to the inventor of the cotton gin, can now hardly be estimated. No one will pretend to deny that without the exhibition of the mechanical genius of Arkwright, Hargreaves, Cartwright, and Watt, England would never have attained her present proud position as a manufacturing nation, and it may not be too much to say that if the genius which called forth the cotton gin had been permitted to slumber, our Southern States would at the present day have been engaged in the culture of rice and tobacco, and we should have still looked to Brazil and the East Indies for cotton, as we now do to China for tea.

"Without a vastly increased supply of the raw material at a lower price than it had formerly brought, the inventions of Hargreaves, Arkwright, and Watt, would have been of comparatively little value. Luckily however, what they did for the manufacturers, Mr. Eli Whitney did for the cotton growers. This astonishing person, a na-

tive of the Northern States of America, invented a machine, by which cotton wool is separated from the seed with the utmost facility and expedition. Previously to 1790, the U. States did not export a single pound of raw cotton, in 1792 they exported the trifling quantity of 138,328 pounds. Whitney's invention came into operation in 1793, and in 1794, 1,601,760, and in 1795, 5,276,306 pounds were exported. and so astonishing has been the growth of cotton in the interval occasioned by this discovery, and the discoveries made in England, that in 1838 the exports from the U. States amounted to the prodigious quantity of 595,952,291 pounds."

BRAND'S COTTON MANUFACTURE.

Its inventor however, early foresaw the slender chance of personal emolument from this source, and although he never ceased to prosecute it with untiring energy, yet with a prudence peculiar to the land of his birth, he sought the means of increasing his gains, in an object which if not as beneficial, at least proved more immediately lucrative. This was the manufacture of muskets for the government. He established his armory on a little stream, whose banks abounded with the most romantic scenery, about two miles from New Haven, in Connecticut. On this spot, now called Whitneyville, which was doubtless recommended to him by many of the associations of his college days, he erected his works which have since served as a model for many of the more extensive manufacturing establishments of our country.

The immediate cause of the establishment of this armory was a contract which he had entered into with the government in January, 1798, to supply it with ten thousand muskets, within the short space of two years. Without the requisite buildings, machinery, or even a knowledge of the business in which he had newly engaged, it seemed hardly possible for him to comply with the terms of the contract, yet relying on his general knowledge of mechanics, and his inventive genius, he sat himself boldly to the task, which to others seemed little less than chimerical. The government advanced five thousand dollars, to enable him to commence his works, and with the aid of several kind friends he was enabled to obtain a loan of ten thousand more. The expenditures involved in the works so greatly exceeded his expectations, that the government found it necessary to make a further advance of fifteen thousand dollars, before they were in a condition to commence the manufacture of the arms. The space of time however, allotted to the contract was extended from two to ten years.

A new contract was entered into by him with the government, to supply them with fifteen thousand additional stands of arms in 1812, a strong argument of the satisfactory manner in which he had complied with his former engagements. The skill and ingenuity which manifested themselves in every part of the machinery connected with his armory, at once displayed the peculiar character of mind of its presiding genius. He personally superintended its entire arrangements, and from the commonest tool to the most intricate piece of machinery, the whole establishment possessed a finish and applicability to the purposes for which it was intended, of which no establishment of his day could boast. Professor Silliman who had known him for upwards of a quarter of a century, says, "I was frequently led to observe that his ingenuity extended to every subject which demanded his attention; his arrangements even of common things were marked by singular good taste, and a prevailing principle of order."

"The effect of this mental habit is very obvious in the disposition of the buildings, and the accommodation of his manufactory of arms,—although owing to the infirmities of his later years, and to other causes, his arrangements were never finished to the full extent of his views. The machinery has great neatness and finish, and in its operation, evinces a degree of precision and efficiency, which gratifies every curious and intelligent observer. I have many times visited the establishment with strangers and foreigners, who have gone away delighted with what they had seen."

The plan originated with Whitney of having every part of the fire arm conform as nearly as possible to a similar part of another. This plan has since been more effectually adopted in the manufacture of the government arms. Under his present contract with the government, Mr. Jenks, the amiable inventor of the many chambered carbine, manufactures this article with such accuracy, that if one thousand stand of carbines were to be unbreeched and their locks removed, a lock, stock, or barrel, selected promiscuously from them, would in every instance fit as accurately as if the three had been made especially for each other.

The manufacture of arms proved a much greater source of profit to him, than the masterly inventions of the gin, and although he was in after years the recipient of considerable sums of money from this source yet he used frequently to say that all he had ever received from the cotton gin was no more than a remuneration for the immense outlays he had incurred, and the time he had devoted to the enterprize during the best years of his life. How different the reward of Coleman, the ingenous inventor of the ælean attachment to the piano forte, who in the short space of six months found himself possessed of a fortune of half a million of dollars from this source. He unfortunately died immediately after attaining his suddenly acquired affluence.

Whitney was neither a selfish nor a solitary man, and from an early period in his life had looked forward to a suitable matrimonial alliance, as a source of unalloyed happiness. As early as 1797, in writing to his partner, (Miller,) he says: "I am now quite far enough advanced in life to think seriously of marrying. I have often looked forward to an alliance with an amiable and virtuous companion, as a source of happiness from whence I have expected one day to derive great happiness. But the accomplishment of my tour to Europe. and the acquisition of something which I can call my own, appears to be absolutely necessary, before it will be admissible for me even *to think* of family engagements." Under the influence of this extreme and laudable caution, he deferred entering into matrimonial engagements until the year 1817; in the January of which year he married the youngest daughter of Judge Edwards, of the District Court of Connecticut.

This union was crowned with all that happiness which he had reason to anticipate from it. Fortunate in the selection of an amiable and intelligent partner, and blessed by four interesting children, he was now enabled to indulge in the realization of those pleasing dreams with which he had always invested a life of domestic happiness.

Surrounded by the delightful and picturesque scenery in the midst of which he had located his home, and lulled by the quiet serenity of his

domestic circle, the five succeeding years proved to be among the happiest of his life. In comfortable, if not affluent circumstances, with a reputation as extended as the culture and use of cotton, surrounded by a large circle of warm and confiding friends, and happy in his domestic relations, fortune seemed about to make him some compensation for the toil and perplexity of former years, but in the midst of so many elements of happiness, disease appeared to mar his pleasure, and prove to him the little reliance to be placed in all earthly enjoyment.

In the fall of 1822, immediately after his return from a visit to Washington, he observed the first indications of an enlargement of the prostate gland, which never left him until it terminated, after a lingering and painful illness, in his death, on the 8th of January, 1825. During his illness he entered into that calm and critical examination of his disease which had characterized all his future operations in life. He consulted the opinions of medical writers upon the subject, and noted down such facts as applied to his individual case. He even requested his physicians to exhibit to him such anatomical illustrations as they possessed, which he examined with much care, and freely discussed with the medical attendants the chances for and against him, at the various stages of his disease, yet strange to say, with an apparent inconsistency which we should have hardly expected to find in him, he directed that no autopsy of his body should be made after his decease.

His distinguished friend, Professor Silliman, who was a constant attendant upon him during his years of illness, observes:

"During this period, embracing at intervals several years, he devised and caused to be constructed various instruments, for his own personal use, the minute description of which would not be appropriate in this place. Nothing that he ever invented, not even the cotton gin, discovered a more perfect comprehension of the difficulties to be surmounted, or evinced more efficient ingenuity, in the accomplishment of his object. Such was his resolution and perseverance, that from his sick chamber, he wrote both to London and Paris, for materials important to his plans, and he lived to receive the things he required and to apply them in the way he intended. He was perfectly successful, so far as any mechanical means could afford relief or palliation; but his terrible malady bore down his constitution, by repeated, and eventually by incessant inroads, upon the powers of life, which at last yielded to assaults which no human means could avert or sustain."—*Silliman's Journal, Vol. 21, p. 259.*

A review of his life must we think satisfy all that he was endowed with a mind of a very high order. His inventive genius, which was not confined to one great object, but left its impress upon every subject however trivial, which commanded his attention, was unequalled by any one of his age. It would be too much to say that his ability to achieve any undertaking in mechanics was without limit, but it is very certain that he never was known to undertake a mechanical task in which he failed to succeed.

An individual of the particular class of genius to which Whitney belonged, might readily be excused for the exhibition of peculiarities which would have unfitted him in some degree for social intercourse, but he was superior to, and above all, such peculiarities. United to a large and commanding person, he combined manners polished by education, and a constant intercourse with the most refined society. He was generous and amiable in his disposition, and was ever open to the appeals of hu-

manity; his expenditures in acts of pure generosity could not be covered by many thousands of dollars. He was fond of social intercourse, and on such occasions possessed a rare fund of conversational ability, and always delighted by the rich stores of his intellect. To his friends he was warmly attached, and retained many from early youth, among whom were some of the most distinguished personages in the land. He lived and died respected for his private worth, his unostentatious benevolence, and his public benefactions. Great in his life, honored in his death, no more noble and lofty praise can be bestowed upon him, than that which is inscribed on his tomb, that he was

THE INVENTOR OF THE COTTON GIN.

DEBT AND BANKRUPTCY.

From Chambers' Edinburg Journal, 1848.

THE insolvent debtor among the Romans was cut to pieces and distributed among his creditors. Even in England, the bankrupt was treated as a criminal, and subjected to the personal punishment of imprisonment. In Scotland, till a hundred years ago, they set the 'dyvour' upon a pillory, with stockings of various colors, to subject him to the scorn of the multitude. All these are traits of the natural sense of mankind regarding the immorality of insolvable debt. Recognizing it as a positive encroachment upon each other's rights and property, they are disposed to punish it accordingly. We are indebted to two things for the change of public sentiment about insolvency—increased humanity, and the new aspect which debt assumes when it is contracted in the course of commercial transactions. We are now no more inclined to be severe with debtors than with others who injure us. The bankruptcy laws have partaken of the amelioration of the criminal code generally. We now trust for our protection here, as against more violent offences, more to the moral influences working in society, than to the vengeance of the law. And when we become familiarised, as we are, with mercantile engagements, in which all are debtors and creditors by turns—not that one may live upon another's means, but because of a mere conveniency in the transacting of business—we cease to regard such obligations in that personal light in which they were once contemplated. Failures to fulfil engagements appear as only the effects of miscalculation or mischance. And then that sense, that what may be your turn to-day may be mine to-morrow, makes us 'wondrous kind.' It is like the Irish small farmer being so gracious to the poor wayfaring beggar, because he does not know but what it may be his own fate next winter. It is a case proved by exceptions; for where is it that bankruptcy is still beheld with the greatest share of the ancient horror?—Always in private communities,

such as little country towns, where no complicated business engagements exist.

But indiscriminating humanity and commerce may carry us too far in our changed views regarding debt and bankruptcy. At least it appears as if very culpable cases were sometimes looked on somewhat too leniently, and as if some of the salutary checks which formerly existed would now be well resorted to. Some discrimination regarding various kinds of insolvents is needed; and there might even be some improvement counselled as to our ordinary ideas regarding the purest of commercial bankruptcies.

When a person in private life, with an ascertainable income, and liable to no risks which can damage his resources, is found short of means to liquidate his obligations, what should we say of or do to him? We may not choose to inflict any tangible vengeance—we may give him the benefit of that meekness of judgment which would speak tenderly of all human infirmity; but undoubtedly this person has been guilty of a great fault. He has committed a practical aggression on the rights of his neighbors. He has either done this from undue love of his own gratifications, or from a recklessness about his affairs which every reasonable person knows cannot be indulged in without the greatest danger. Society ought not to forgive it *too* easily. Such a person is not entitled to stand exactly on the same platform of moral repute with those who keep clear of debt. So society will say in its cool moments; but, unluckily, one of its perverse sympathies interferes with the maintenance of the principle. Men in the mass feel *for* the poor and embarrassed, and *against* the rich, or those who have enough. Very often those who fall short are easy-natured, kind-hearted men, and therefore popular. Persons in the opposite circumstances often are of hard character—not general favorites. Then our selfhood is more soothed in looking on a downcast or outcast person, than on one who stands in all the pride of independence. Thus it comes about that society never visits debtors of this class with the full punishment which, as guilty of an infraction of rights, they deserve. It might be different if we were to get quit of the fallacies which beset the case. Creditors are not necessarily either rich, or hard, or self-sufficient, but often very much the reverse. Neither are debtors always necessarily generous: having used their neighbors' property for their own benefit and indulgence, it may fairly be inferred of them that they are fully as likely to be selfish. But we cannot, it will be said, shake off fallacies resting on sympathies so deeply founded in our nature. Then our sufferings from foolish and unprincipled debtors are the penalty which we must pay for our absurdity. Let not debtors, however, exult too much in the privilege, or take too much advantage of it. It is, after all, but pity which is extended to them—a sentiment whose associations are in no good savor in human experiences. Nothing can save debt from the stamp which destiny has put upon it—degradation. The reckless may therefore feel assured that, in the long run, it is somewhat better to be over an equality with the world than below it.

In commercial insolvency there is a less direct appearance of selfishness in the debtor, in as far as the articles for which the debt was contracted are not for objects of domestic consumption or personal gratifi-

cation. The culprit seems only a loser in a game of chance. Things have gone against him. He has met with losses. The very machinery, so to call it, of business blinds us somewhat to the position he is in. We only see so many ruled books of accounts, and little slips of inscribed paper. We only hear of 'state of the money market,' acceptances, returned paper, assets, dividends, and other terms more metaphysical than real. It is difficult, particularly when the transactions are of large amount, to connect the case with human passions, error, and trespass. Yet even here the moralist may come in with his rebukes and warnings. The aim of the commercial man in the contracting of his obligations is, after all, a selfish one; he intends by the results of such transactions, to obtain exactly those tangible indulgences which have brought his non-commercial neighbor into debt. It is, in the world's morality, legitimate to follow this object with one's own means and industry; but it never can be so to follow it by means of the property of another man. Such is the case of him who trades chiefly upon means not his own; who, in other words, trades largely upon credit. If A B, for example, possessing property to the value of only five thousand pounds, orders foreign corn to the amount of fifty thousand, in the hope of making fifteen thousand by it, while there is a chance on the other hand that, by a fall of markets, it may only sell for thirty, he undoubtedly is risking a loss of fifteen thousand pounds to his creditors for the chance of making as much for himself. Rightly judged, this is an unprincipled action—as much so as to commit positive larceny. Yet, sad to say, this is the system pursued by a vast proportion of commercial men. All trading beyond a proper substratum of means is only a kind of masked profligacy—unless, indeed, credit is pushed upon a man by others, who have their own selfish objects in view; in which case the insolvent may be as much the sinned against as the sinning. We were lately told of mercantile houses which had not been in a position to pay all their debts within the memory of any person; yet the partners had been living in handsome style, upon these ventures of the means of others, during a series of generations!—What a false and hollow life! It could never find one voice to justify it, if there were not so many involved in some degree in the turpitude. One painful consideration is, that many, if they would keep to their own means, might be prosperous and happy; but unable to rest satisfied with moderate doings, they rush into the difficulties consequent upon credit, and thus make for themselves great reverses. It appears as if some men had such a liking for embarrassment as others have for opium or brandy, and never could be at rest except when tossed about in a forest of dilemmas. Talk of the frivolous lives of the ultra-gay, of the unhealthy lives of the poor, but what can be more forced, unhealthy, or unnatural, than the life of one of these infatuates of the business world, who rush from speculation to speculation, as if to gratify a morbid love of excitement, and, in the absorbment of their daily avocations, forget nearly every domestic tie?

It surely might be possible to make the proper allowance for the bankruptcies occurring through inevitable misfortunes, and yet be sufficiently alive to the nature of those cases in which there had been no right substantial basis of means from the beginning, or where business had been

persevered in long after the right means had ceased to exist. Were the latter course marked by the public as immoral, which is its real character, we might hope to see it less frequently followed.

Perhaps there is need for some reform of our whole ideas regarding credit. When it is said that without credit business could not be carried on, that credit is the soul of business, and so forth, a truth is stated; but it does not properly imply anything more than this, that a man must be believed to have the means, as well as the honest intention, of discharging his obligations, in order that his transactions may go on smoothly, seeing that *it* is practically impossible, in any but a small class of cases, to hand the money in exchange for goods. It is to be feared that with the mercantile class generally, the maxim has come to sanction the incurring of obligations without any very rigid regard to the means of discharging them. Some appear to worship it as a principle which comes in place of, and dispenses with, capital; but in as far as it is not expressly referable to actual means—that is, the means of making good, and that readily, any difference between the value of goods purchased or engaged for, and that to which they may fall, and all other unfavorable contingencies which may be expected to take place in the course of business—it is a delusion and a snare. Men proclaim that the business of the world would be at a stand-still if there were not this faith, not in things unseen, but in things which do not exist. We deny the assertion. The business of the world would be executed by men possessing real means, if it were not anticipated by men without means. The traders on *fiction*, who are a species of impostors, only so far prevent those who would trade on *fact* from having their legitimate share of the said business; and how far it would be better for the public at large that the latter class were not thus interfered with, it is superfluous to say.

There are no doubt wonderful doings amongst those who work upon fiction: happy strokes, dashing successful adventures, where there was no substance to stand good in the case of an opposite result, are well known. But these are only dangerous exceptions from the rule. The chances are, in reality, much against the success of a business conducted too much on credit. It is a system which always involves a higher scale of prices, and which is costly in its own procedure; thus reducing or extinguishing profits. There is even a more fatal evil attending it, in the demand which it makes on the time and energies of the trader, merely to supply ways and means. The few, as comparatively they may be called, who take the opposite plan, thrive as much by the freedom in which their minds are left to attend to the real affairs of business, as by any advantage they have in getting all things at the greatest advantage. It is merely the mistake of excessive acquisitiveness, or of rashness in combination with ignorance, that business cannot be limited to actual means. There is nothing to prevent it, if men will only be contented to do that in ten years which requires ten years, and not to attempt doing it in five, or three, or any shorter time. Let them use the gains of one year for the business of the next, and never try to make any sum of money do more than its proper amount of work. If they are to make a risk, let it strictly be one which, in its worst issue, will not embarrass them. On such principles, they will conduct their affairs with peace of

mind, and with the best likelihood of success. Are such persons above credit—or is credit slighted by their course of procedure? Not at all. These persons enjoy true credit, in there being such an assurance of their substantiality, that whatever they wish to purchase, will be sent on their order—the whole play of the blood and muscle of their business will be healthy by reason of the dependence placed on them. Such is, in truth, the only right kind of credit. That which enables one man to do without money what another man does with it, is, as has been already said, a delusion.

The philosophy of these remarks entirely applies to the question regarding a circulating medium. Barter is, after all, the fundamental idea of commerce. When we pay for articles in gold, we are only exchanging one article for another. It is more convenient and economical to have notes representing the gold; but this does not necessarily imply that we may have notes which there is no gold to represent. That were to proceed upon fiction instead of fact. The gold lying in the coffers of the note-issuing company is not idle. It is serving all the time as a basis for the ideal character of the notes out of doors. But may there not be notes representing land, or houses, or goods, as well as gold? It has been tried and found wanting.* The basis article must be readily available and receivable, otherwise the ideal money loses character, and its function ceases. Whatever tends to prevent a currency of this kind, or of any kind but that which is immediately backed by substances which mankind set a distinct value upon, and are always willing to receive at a certain rate, must be serviceable to the true interests of the community. There may be some evils attending it, not springing from itself, but from the imprudence which it checks; but the general force of this principle is clearly advantageous.

The evils of debt and bankruptcy may be said, like many others, to arise from the blind efforts of human ignorance and passion to fly in the face of natural ordinations which we cannot resist with impunity. If men would observe and go along with these ordinations, they would so far secure their happiness. But it so happens that a man may receive what is called a perfect or first-rate education, and yet be unacquainted with some of the very primary rules affecting his well-being as an inhabitant of the earth. The period of comparative security from this class of evils must, therefore, be expected only when the knowledge of mankind has been increased.

*In America particularly. The Scottish banks are remarkable for the large business they long carried on upon the basis of general property; but for this there are special reasons in the smallness of the country, which makes every man's circumstances readily known, and in the extreme prudence with which the business of banking was always conducted in this part of the empire. These things, with time, produced confidence, and enabled bankers to do with less gold than is usually necessary.

FINANCES OF THE UNITED STATES.

Debts, Imports, Exports, Tonnage and Coinage of the United States, for each year from 1791 to 1846.

Years.	Debt.	Imports.	Exports.	Tonnage.
1791	$75,463,476	$52,200,000	$19,012,041	502,146
1792	17,227,924	31,500,000	20,753,098	564,437
1793	80,352,634	31,100,000	26,109,572	491,780
1794	78,427,405	34,600,000	33,026,233	628,817
1795	80,747,587	69,756,268	47,989,472	747,964
1796	83,762,172	81,436,164	67,064,097	831,900
1797	82,064,479	75,379,406	56,850,206	876,913
1798	79,228,529	68,551,700	61,527,097	898,328
1799	78,408,670	79,068,148	78,665,522	946,408
1800	82,976,294	91,252,768	70,971,780	972,492
1801	83,038,051	111,363,511	94,115,925	1,033,219
1802	80,712,632	76,333,333	72,483,160	892,101
1803	77,054,686	64,666,666	55,800,033	949,147
1804	86,427,121	85,000,000	77,699,074	1,042,404
1805	82,312,150	120,000,000	95,566,021	1,140,369
1806	75,723,271	129,000,000	101,536,963	1,208,735
1807	69,218,399	138,500,000	108,343,150	1,268,548
1808	65,196,318	56,990,000	22,439,960	1,242,595
1809	57,023,192	59,400,000	52,203,231	1,350,281
1810	53,173,217	85,400,000	66,757,974	1,424,783
1811	48,005,588	53,400,000	61,316,831	1,232,502
1812	45,209,738	77,030,000	38,527,236	1,269,997
1813	55,962,828	22,005,000	27,855,997	1,666,628
1814	81,487,846	12,965,000	6,927,441	1,159,209
1815	99,833,660	113,041.274	52,557,753	1,368,127
1816	127,334,934	147,103,000	81,920,452	1,372,218
1817	123,491,965	99.250,000	87,671,569	1,399,911
1818	103,466,634	121,750,000	93,281,133	1,225,184
1819	95,529,648	87,125,000	70,142,521	1,260,751
1820	91,015,566	74,450,000	69,691,669	1,280,166
1821	89,987,428	62,585,724	64,974,382	1,298,958
1822	93,546,677	83,241,541	72,160,281	1,324,699
1823	90,875,877	77,579,267	74,699,030	1,336,565
1824	90,269,778	80,549,007	75,986,657	1,389,163
1825	83,788,433	96,340,075	99,535,388	1,423,112
1826	81,054,060	84,974,477	77,595,322	1,534,190
1827	73,987,357	79,484,068	82,324,827	1,620,608
1828	67,475,044	88,509,824	72,264,686	1,741,392
1829	58,421,414	74,492,527	72,358,671	1,260,978
1830	48,565,406	70,876,920	73,849,508	1,191,776
1831	39,123,192	103,191,134	81,310,583	1,267,846
1832	24,322,235	101,029,266	87,176,943	1,439,450
1833	7,001,699	108,118,311	90,140,433	1,601,150
1834	4,760,082	126,521,332	104,336,973	1,759,907
1835	37,733	149,895,742	121,693,577	1,824,940
1836	37,513	189,980,035	128,663,040	1,892,102
1837	1,878,224	140,989,217	117,419,376	1,896,685
1838	4,857,660	108,486,616	113,717,404	1,995,639
1839	11,983,738	121,028,416	162,092,132	2,096,478
1840	5,125,078	131,571,950	104,805,891	2,180,764
1841	6,737,398	127,946,177	121,851,803	2,130,744
1842	15,028,486	100,162,087	104,691,534	2,092,390
1843	26,598,953	64,753,799*	84,346,480*	2,158,602
1844†	26,143,996	108,435,035†	111,200,046†	2,280,095
1545†	16,801,647	117,254,564†	114,646,606†	2,417,002
1846†	24,256,495	121,691,797†	113,488,516†	2,562,084

*Only nine months of 1843. †For the year ending June 30.

Coinage of the Mint of the United States, from 1792, *including the coinage of the Branch Mints from the commencement of their operations, in* 1838.

Years.	Gold. Value.	Silver. Value.	Copper. Value	Whole Coinage. No. of pieces.	Value.
1793-5	$71,485 00	$370,683 80	$11,373 00	1,834,420	$453,541 80
1796	102,727 50	79,077 50	10,324 40	1,219,370	192,129 40
1797	103,422 50	12,591 45	9,510 34	1,095,165	125,524 29
1798	205,610 00	330,291 00	9,797 00	1,368,241	545,698 00
1799	213,285 00	423,515 00	9,106 68	1,365,681	645,906 68
1800	317,760 00	224,296 00	29,279 40	3,337,972	571,335 40
1801	422,570 00	74,758 00	13,628 37	1,571,390	510,956 37
1802	423,310 00	58,343 00	34,422 83	3,615,869	516,075 83
1803	258,377 50	87,118 00	25,203 03	2,780,830	370,698 53
1804	258,642 50	100,340 50	12,844 94	2,046,839	371,827 94
1805	170,367 50	149,388 50	13,483 48	2,260,361	333,239 48
1806	324,505 00	471,319 00	5,260 00	1,815,409	801,084 00
1807	437,495 00	597,448 75	9,602 21	2,731,345	1,044,595 96
1808	284,665 00	684,300 00	13,090 00	2,935,888	982,055 00
1809	169,375 00	707,376 00	8,001 53	2,861,834	884,752 53
1810	501,435 00	638,773 50	15,660 00	3,056,418	1,155,868 50
1811	497,905 00	608,340 00	2,495 95	1,649,570	1,108,740 95
1812	290,435 00	814,029 50	10,755 00	2,761,646	1,115,219 50
1813	477,140 00	620,951 50	4,180 00	1,755,331	1,102,275 50
1814	77,270 00	561,687 00	3,578 30	1,833,859	642,535 80
1815	3,175 00	17,308 00	. . . . .	69,867	20,483 00
1816	. . . . .	28,575 75	28,209 82	2,888,135	56,785 57
1817	. . . . .	607,783 50	39,484 00	5,163,967	647,267 50
1818	242 940 00	1,070,454 50	31,670 00	5,537,084	1,345,064 50
1819	258,615 00	1,140,000 00	26,710 00	5,074,723	1,425,325 00
1820	1,319,030 00	501,680 70	44,075 50	6,492,509	1,864,786 20
1821	189,325 00	825,762 45	3,890 00	3,139,249	1,018,977 45
1822	88,980 00	805,806 50	20,723 39	3,813,788	915,509 89
1823	72,425 00	895,550 00	. . . . .	2,166,485	967,975 00
1824	93,200 00	1,752,477 00	12,620 00	4,786,894	1,858,297 00
1825	156,385 00	1,564,583 00	14,926 00	5,178,760	1,735,894 00
1826	92,245 00	2,002,090 00	16,344 25	5,774,434	2,110,679 25
1827	131,565 00	2,869,200 00	23,557 32	9,097,845	3,024,342 32
1828	140,145 00	1,575,600 00	25,636 24	6,196,853	1,741,381 24
1829	295,717 50	1,994,578 00	16,580 00	7,674,501	2,306,875 50
1830	643,105 00	2,495,400 00	17,115 00	8,357,191	3,155,620 00
1831	714,270 00	3,175,600 00	33,603 60	11,792,284	3,923,473 60
1832	798,435 00	2,759,000 00	23,620 00	9,128,387	3,401,055 00
1833	978,550 00	2,579,000 00	28,160 00	10,307,790	3,765,710 00
1834	3,954,270 00	3,415,002 00	19,151 00	11,637,643	7,388,423 00
1835	2,186,175 00	3,443,003 00	39,489 00	15,996,342	5,668,667 00
1836	4,135,700 00	3,606,100 00	23,100 00	13,719,333	7,764,900 00
1837	1,148,305 00	2,096,010 00	55,583 00	13,010,721	3,299,898 00
1838	1,809,595 00	2,333,243 00	53,702 00	15,780,311	4,206,540 00
1839	1,355,885 00	2,189,296 00	31,286 61	11,811,594	3,576,467 61
1840	1,675,302 50	1,726,703 00	24,627 00	10,558,240	3,426-632 50
1841	1,091,597 50	1,132,750 00	15,973 67	8,811,968	2,240,321 17
1842	1,834,170 50	2,332,750 00	23,833 90	11,743.153	4,190,754 40
1843	8,108,797 50	3,834,750 00	24,283 20	114,640,582	11,967,830 70
1844	5,428,230 00	2,235,550 00	23,987 52	9,051.834	7,687,767 52
1845	3,756,447 50	1,873,200 00	38,948 04	11,806,196	5,668,595 54
1846	4,034,177 00	2,558,580 00	41,208 00	133,515	6,633,965 00
Total,	52,344,542 50	69,052,014 90	1,083,774 52	315,239,616	122,480,321 92

The coinage at all the Mints during the first six months of the year 1847 reached the sum of $8,206,222 67. The deposites in the same year were $8,906,554 21. These results show a greater amount of deposites and coinage than has been reached in any *whole* year, with the exception of the year 1843, when the total coinage was nearly twelve millions.

THE PRECIOUS METALS.

From Chambers' Edinburgh Journal, 1848.

MONEY, in some form or other, has in all time been so intimately associated with the business and pleasure of the world, with the public and private policy of nations and of individuals, as to have engaged the attention of philosophers and legislators, poets and philanthropists, as well as the votaries of the giddy goddess who regard it merely as the vehicle of enjoyment. Whatever the material of which the circulating medium is composed, its potency has varied but little, if at all, from the universal standard. Some people have considered that there was 'nothing like leather,' and impressed a stamp upon bits of hide; others have declared in favor of iron, brass, bronze; in short, all the metals, as they were known, have been legitimatised into currency. In some countries yet unvisited by the schoolmaster, we are told that the natives use bullocks instead of bank-notes, with sheep by way of small change; others, again, recognize only lumps of salt, or shells. Still, as before observed, whatever the material, the conventional currency appears to be every where pretty much the same as among our day-book and ledger communities:

> ———'The only power
> That all mankind falls down before;
> Money, that like the swords of kings,
> Is the last reason of all things.'

By common consent of all nations who have been able to obtain the precious metals, gold and silver have superseded all other materials of currency—always excepting paper. These occupy so small a space, admitting of being conveniently hoarded and preserved, as to have commended themselves especially to popular instinct in remote and unsettled ages. At the time of the conquest of Persia by the Greeks, the gold accumulated by successive monarchs of that country amounted to about £80,000,000 sterling. The whole or greater portion of this large sum was transferred to Greece by the victories of Alexander, besides which there were several mines of gold and silver within the Grecian territory. The influx of such enormous wealth would necessarily tell on the manners of the people, and on prices; and accordingly, in the days of Demosthenes, gold and silver were five times less valuable than under Solon.—Whatever be the amount circulating in a country, there is a constant tendency towards diminution; the immense accumulations would be widely scattered in foreign wars or intestine convulsions. How great must have been the dispersion of precious metals on the downfall of Rome, and afterwards of Byzantium! From the date of the latter event, down through the middle ages, and even to the present century, large sums have been totally lost, from the practice of burying money for safe-keeping, as in many instances the owners died, and carried the secret with them to the tomb. When to these causes is added the loss by ship-

wreck, and other casualties, the result appears in the magnitude of the diminution. Just before the discovery of America, gold was at an enormous value, but subject to great and frequent fluctuations.

The amount of coined money circulating in the whole of Europe at the close of the fifteenth century, has been estimated at £34,000,000 sterling. The quantity coined in England in 237 years, ending in 1509, was equal to nearly £7,000 annually, present value; but from 1603 to 1829, the average was £819,415, or 122 times greater than before the supply from the mines of the new world. In addition to the causes of diminution above described, there is the mechanical wear of the money in passing from hand to hand. This loss has been variously estimated: according to Mr. M'Culloch, it is 1 per cent. per annum. If this be correct, £40,000,000 coined at the beginning of a century, would be reduced to £15,000,000 at the end; in two centuries, £6,000,000 would remain; and in five centuries, about £300,000 only. Taking Mr. Jacob's estimate of the annual wear at 1-360th part, what was £200,000,000 under Constantine, would be reduced to £12,000,000 in the time of Edward I.

The discovery of the mines of Potosi, above all other acquisitions made by Europeans in South America, effected an important change in the commercial relations of the old world. Purchasers found it necessary to go to market with more and more money in their hand, such was the progressive increase of prices. To many persons the rise was a source of exultation, but the greater part regarded it with suspicion and discontent: they could not understand why wheat should be doubled, and in some instances quadrupled, in price, in the course of a few years. The dissatisfaction was not confined to the poorer classes—it excited attention in higher quarters; and Latimer, in one of his sermons preached before Edward VI. and the court, animadverted upon the change in no very mild terms. In reality, mankind were benefited, not injured, by having more gold than they had before, just as they would be benefited by an increase in the amount of their wardrobes, or growing timber, or any other tangible possession. The present importations of silver into Europe are about 40 to 1 compared to those of gold. According to all the accounts, we are to see greater changes in the course of a few years, from the influx of the precious metals, than any that have yet been produced. The application of European science and industry to the exploration of the hitherto imperfectly-worked mines of the South American States, will doubtless effect some notable difference in the proceeds. In those countries, wheelbarrows and vehicles for transport are scarcely known, and in most cases mule tracks are the only roads. The workmen generally employed in mining operations possess no other tools or machinery than their ten fingers, a lasso, and a knife. The loss and waste consequent upon such a state of things may be easily imagined. Mercury, as is well known, is an essential element in amalgamations of gold and silver, and in their separation from the ore; the quantity annually required for these purposes by the American mines is about 3,000,000 of pounds. Of this the greater portion is imported; and its transmission into the interior of the country is in the hands of monopolists, by whom the price is raised to so excessive an amount, as to leave but little room for profit to the miner. Various attempts have from time to time

been made to effect the operations in which mercury is employed by other methods: at Freyberg, in Saxony, the amalgamation is accomplished in revolving cylinders, which complete the process in fewer hours than the days consumed in the operation in Mexico and Peru, with a much smaller consumption of the quicksilver. In Europe, mercury is used to recombine the silver after its separation from the ore, while the American miners employ it to effect the separation.

Recent and present researches in electro-chemistry render it certain that before long this resistless agency will supersede the use of quicksilver in the working of metals: its power over the elements of the most intimate combinations of metallic and other bodies is well known. The experiments of M. Becquerel in this branch of science have as yet been the most successful, and although not so effective as is to be desired, they have acquired an industrial character. Some of the experiments undertaken in Paris were tried upon nearly 10,000 pounds of silver ore from Mexico, and with a favorable result. A method of amalgamation has also been discovered, by means of which five-sixths of the mercury now considered essential to the process will be saved. About 40 ounces of silver are obtained from 1000 pounds of ore; the pulverization or trituration of the latter is effected in South America by the feet of men and mules, instead of water or other power. Human skill, in fact, seems to be deficient in proportion to the riches of nature. A machine somewhat similar to a mortar-crusher was introduced at Potosi to supply the place of animal labor by a European. With this instrument, one man and a mule, costing five shillings per day, could do as much work as twenty Indians, for whom the charge was three pounds. Although this machine was constructed more than twelve years ago, not one of the laborers or workmen employed at the mines has attempted to imitate it: they leave the owner in undisturbed possession of his advantage, and plod on in their old way. This fact alone will suffice to show the waste of capabilities in the search for metals, and the increased return that may be looked for under a more efficient system of management. The conquest of Mexico by the people of the United States may be regarded as a preliminary step in the development of those hitherto neglected resources. With their restless enterprizing spirit, roads, canals, and railways will soon be constructed, and the mining returns will reach their maximum.

Baron Humboldt has expressed himself in most positive terms on the subject of the future production of the precious metals. Confining himself to the Mexican states alone, he says—'When we consider the vast extent of surface occupied by the Cordilleras, and the immense number of mineral deposits which have not yet been attacked, we shall understand that New Spain, when better governed, and inhabited by an industrious population, will yield for her own share the seven millions now furnished by the whole of America. In the space of one hundred years, the annual produce of the Mexican mines was raised from 1,000,000 to nearly 5,000,000 of pounds.' In another place he writes—'Europe would be inundated with precious metals if simultaneous labors were commenced, with all the improvements in mining machinery, upon the deposits at Balanos, Batopilas, Sombrerete, Rosario, Pachuca, Sultepec,

Chihuahua, and many others long and justly celebrated. . . . . There is no doubt that the produce of the mines of Mexico might be doubled or tripled in the space of a century. . . . . In general, the abundance of silver is such in the chain of the Andes, that taking into consideration the beds yet left intact, or which have been but superficially worked, we should be tempted to believe that Europeans have scarcely begun to comprehend the inexhaustible fund of riches shut up in the new world.' With the proverbial celerity of the United States' population, much of the work here calculated for one hundred years is likely to be achieved in a quarter of that time: the effect on rates of exchange and prices all over the world will be very remarkable. Silver, it is calculated, will be reduced at least one-half in value; and those countries in which the greatest amount of this metal is in circulation will be most exposed to loss. The silver coin circulating in Europe is commonly estimated at £320,000,000, of which France holds three-eighths: according to some authorities, the contingency to be provided for is only a question of time.

'A phenomenon will be exhibited similar to that which complicated prices and transformed so many social positions three centuries ago. The crisis, however, will be much less rapid and less violent; because the mass of silver already acquired by the old continent being enormous, the influence of even a considerable quantity thrown into the market will make itself felt more slowly. The level between different centres of commerce is more easily established than formerly; a glut upon one isolated point is therefore little to be feared. After some time, the value of silver would be regulated everywhere by the cost price; and if the expenses of production are reduced one half, any country at present in possession of a currency worth £30,000,000, would be the poorer to the amount of £15,000,000, since the quantity of labor and of profit which a shilling would then represent would be diminished by one-half.'

Mines of gold and silver are, however, not exclusively confined to America: with the exception of England, there are several in nearly every other country of Europe, and the return from some of these is increasing every year, a cause which will naturally accelerate the effects contemplated. An accurate annual statement is published of the produce of the mines of Russia. In that empire, the metalliferous deposits extend over a region stretching from Kamtchatka to Peru—one half of the earth's circle in length, with an average breadth of 8 degrees of latitude. The presence of gold under this portion of the world's surface was early known, and recorded by Herodotus, but was subsequently lost sight of for two thousand years. In 1774, the re-discovery of auriferous sand was made during some repairs to the machinery at the Klutchefsk mines; further discoveries followed, and in 1823, the present system of working was commenced. The richest deposits are found in the Ural and Altai mountains: in 1836, the produce of gold was 13,000 pounds weight; in 1845, it had increased to 45,000 pounds; and as far as ascertained, the returns for 1846 were still augmenting. The gold furnished by Russia is to that of America as 144 to 100. 'So great is the quantity of gold at present existing among civilized nations, that an annual addition of 45,000 pounds would not for a long time cause any sensible difference.'

For some of the facts and conclusions in the foregoing paper, we are indebted to an elaborate article on the subject in the 'Revue des Deux Mondes,' by M. Chevalier.

PRINCIPLE AND CIRCUMSTANCES.

From Chambers' Edinburgh Journal.

It is the distinguishing characteristic of man to appreciate moral truth, and to follow its dictates from an inward principle, which is not a mere casual impulse, or current opinion of the day, but the calm deduction of the highest reason, harmonizing with the declared will of God, and acting through the medium of an enlightened conscience.

A high authority teaches us to combat circumstances, and promises high rewards to those who 'overcome.' It urges us to be pure amongst the impure—not to go out of the world, but to overcome the evil which is in it. Thus we are taught that 'life is a warfare, in which we must side with the good or evil; and just in proportion as we show indecision, we shall invariably suffer as moral beings.' This opposing of 'circumstances' by force of an inward principle, is the great moral warfare, in which all good and true men have to bear a part, and the weapons of their warfare are not carnal, but spiritual; that is, they consist of 'principles.' What numerous things there are in every-day life which might yield a momentary gratification, but from the commission of which a man of principle is continually deterred! He might take some step which would make him suddenly rich, but he is deterred from doing so if it should cause injury or suffering to his fellow-creatures; he might invade the liberties and enjoyments of his fellow-men with impunity; in fact there is no limit to the mischief which every man might commit, if not under the restraint we have indicated. Virtuous conduct, therefore, is but the amount of resistance to circumstances, and the amount of sacrifice we may have submitted to for the sake of principle. We know, from experience, that there is no eminence of any kind without effort, resistance, discipline; and the excellence of the attainment is generally in proportion to the severity of the discipline. Exercise and effort tend to improve all our faculties, mental and moral, as well as physical. Providence seems to have interposed the obstacles of 'circumstances,' in order to strengthen character, and to develop virtue. Virtuous conduct, therefore, is not a mere conventionality or convenience of action. That is not virtue which is never tested by trial and temptation. Virtuous conduct cometh out of the furnace, and shines with increasing lustre. Everything that is lovely in character, ever act of moral bravery and virtue, derives its lustre from this battling with circumstances, and overcoming

them. The virtuous conduct which is the mere result of circumstances, is not virtue at all. It may wear its garb; it may receive even the homage of the world; but as we understand virtue, this is not it. The opposite view of the subject, which would give to circumstances a greater influence over the virtues of men than principle, would deaden all our faculties. We should be always calling on Jupiter for help, instead of putting our shoulder to the wheel, and vigorously trying what strength we have in ourselves. If circumstance is to mould us, and to limit our virtues, we have nothing to hope for, no moral or spiritual good to aspire after. We may, in that case, lie down in despair.

'Circumstance' is anything or nothing, according to the weakness or strength of character and principle to resist. It exists, at the best, only in some *tangible* shape, some physical obstruction, some caprice of fortune, or some bugbear of the mind. Virtue, conscience, duty!—the power of moral appreciation exists independently of all these. Though the whole world in arms is against the man of principle, he remains unmoved, self-controlled, and self-rewarded. You may imprison his body, or take away his life, but you cannot deprive him of his principles. When the body dies, he believes that these principles of truth and duty will still survive. If not, why this feeling after immortality? why this discrepancy between what we are, and what we would aspire to be? If circumstances make virtue, what becomes of virtue when circumstances vanish away? All sublunary things are merely 'circumstances,' and will one day vanish to us all; but virtue, and the rewards of virtuous conduct, emanating from a spirit and principle within, will still survive. As 'men's outward fortunes do draw the inward quality after them,' so it is natural to believe that, in a future state, this 'inward quality' will still 'draw after it' the superior blessings of immortality.

Even in the outward circumstances of life, why do we choose certain individuals for place of trust and responsibility, but because we think their principles are proof against the temptations of circumstances. It is the same with public men—the self-denying spirit which makes the patriot and martyr to principle, and to duty, this is their only passport to confidence and true fame, and it is the only passport to our confidence on behalf of the poorest man we employ. The same applies to all moral reformers, and to every individual man: you will find that the virtue is the amount of resistance which they have shown to circumstance. We teach this lesson to our children, as the only solid basis of all moral training: 'when wicked men entice thee, consent thou not;' when allured by the blandishments of transitory pleasure, look forward to futurity; when the days are dark, and the storms of trouble are threatening to overwhelm thee, still hold on to principle—be above 'circumstances!'

Even in temporal affairs, the advantages of being self-sustained by a fixed principle are most apparent. Men go into the wilderness of the world surrounded by the most adverse circumstances; but the true man never despairs, so long as he has confidence in his principles and in himself. He proceeds to do battle with them all: he fells the forests, he ploughs the fields, he sows his seeds, and in due time he reaps his reward.

This subject might be illustrated by the experience of every-day life. How notorious is the fact, that those children who have had the most done for them by circumstances, frequently turn out the least serviceable members of society! Pamper your offspring by circumstances, protect them and smother them with kindness, and you cannot take a more direct means of enfeebling their characters, and of robbing them of all genuine principle. On the other hand, who have always been the really influential and strong men of the day? Who are the men who have 'learned to endure hardness,' who can buffet most successfully against the frowns of fortune? Are they not generally those who are self-formed, who have done everything for themselves, who have had nothing to trust to but their own inward energies?

The same principle holds good in science, in literature, and in artistic eminence. It is not chartered universities, nor royal societies, nor the patronage of the great, which has produced the most splendid results. No: the fostering of circumstances *alone* never produced genius, nor virtue, nor eminence of any kind, and never will. It never produced a Watt or an Arkwright, a Stephenson or a Dalton. It never produced a poet like him

> 'Who walked in glory and in joy,
> Following his plough upon the mountain side.'

The same may be said of religion, or rather of the fostering and patronizing influence of religious professions.

If circumstances without effort produced virtue, then those countries should be the most virtuous which are the most favorably situated as to natural advantages. The orange-groves and vineyards of Spain and Italy, one would think, should be abodes of virtue and of patriotism, if easy circumstances, and the absence of obstacles, could produce it. But what is the fact? As Goldsmith says, 'Whilst——

> In florid beauty groves and fields appear,
> Man is the only growth that dwindles here.'

The high rewards of virtue, it would appear, are not offered to the merely acquiescent and passive spectator of the scene. The most amiable dispositions even degenerate when not called into active exertion. 'The strength to suffer, and the will to serve,' are not acquired by sitting down contentedly with things as we find them. It is not by living a butterfly or caterpillar existence, and merely taking the color of surrounding circumstances, that eminence or virtue of any kind can be attained.

But besides all this, the advocates of the supremacy of 'circumstances' destroy every vestige of human responsibility! You must then passively submit to a worse than Asiatic apathy or Turkish fatalism. Duty is no more! You have merely to consult your convenience, your pride, your covetousness, or your lust; and these will find ready instruments of gratification in the circumstances around you. Every fiend that could minister to the evil passions of man would then be let loose, and the world would become one great pandemonium of villainy and corruption. 'Man, so noble in reason, so infinite in faculties, in action so like an angel, and in apprehension so like a god,' is then, after all, the mere sport

of circumstances! Why, this is the most degrading and injurious view of human nature you could possibly take. For what are these high faculties, these godlike instincts given to us, but that we may vindicate the supremacy of our moral being, and make the world and ourselves better by a continual warfare with circumstances. The man of principle has a talisman in his own breast which makes circumstances his slave. In mere worldly affairs, by the force of principle, we may as Shakspeare says, 'pluck out of the nettle danger, the flower safety.' 'We may extract a soul of good out of things' apparently 'evil.'

We would freely admit the enormous power of circumstances in moulding men's *manners*, and in reconciling them to the customs around them. No person who has observed the monotony, the sameness, and the common place character of the mass of mankind, but must be struck with the enormous influence of circumstances in producing these results. Even men's opinions may appear to be the result of circumstances; but these are merely the floating heresay opinions of the day, and are of no use to their possessors, or to the world. It is 'because the world is too much with us, because we have given our hearts away,' that we are so miserably dependent on external opinions and circumstances. When we ascend to the regions of moral truth, to principles, we are altogether in a higher sphere—we no longer passively submit to be thought *for*, and moulded *by* others: we begin to think for ourselves; to appropriate principles as our own; and as individuals, and though alone, can confidently fall back upon then in the day of need. A man like this is self-guided, and he becomes strong; and prevails so long as the motto of his shield is to 'bide by the right.' There *is* no *right* and no *wrong* in human conduct, if you are the sport of 'circumstances;' no satisfactions of conscience for having stood by the right, no moral or spiritual progress for man, if he once embraces this degrading creed. No man can then be trusted in the common affairs of life: you give up the great principle of integrity between man and man: honor, faith, truth, and adherence to them, regardless of consequences, are then no more: you are then to wander forth into an unknown wilderness without a guide, and to sail on a trackless ocean without a compass, a rudder, or a chart, and with no haven of rest in prospect before you.

In these unbelieving times, it is difficult to make people perceive the mighty efforts which may spring from simple adherence to principle, even by a single individual. The world seems not to believe it, until some *one man* puts them all to the blush by adhering *to*, and suffering *for*, his principles. It is melancholy, in looking over the dreary waste of history, to find so few individuals, out of the vast mass, who have acted from principle such as we have attempted to describe. This may be truly described as 'the great tragedy of the world.' Still *there are a few*, and these few comprise the moral history and progress of mankind. By these the waverer is confirmed and called back to duty—the apathetic, and morally dead, are resuscitated to life and activity. It was one of 'moral principle,' one act of resistance to circumstances, which made Joseph the saviour of his adopted country, and the deliverer of his people. There are a few kindred names in our modern history, and they are the turning points of freedom, of reformation, and of religion. When the

world stood aghast with fear, and was ready to give up the cause, these men of principle stepped into the breach, and turned the battle to the gate. Luther was made of materials like this; so were Ridley and Latimer, and a host of the early martyrs. By adhering to principle, Pym, and Hampden, and Cromwell wrested the sceptre from one of the proudest monarchies of the world, and saved their country from despotism; by adhering to principle, Greek and Roman sages, and patriots and philosophers, have covered all future ages with traces of their classic glory. Even the deities in their pantheons are representatives of moral heroism, symbolising often in the rudest forms the triumphs of circumstance-defying principle. By principle, Washington saved his country from a foreign yoke, and founded that vast republic which is now the ark of refuge for the miseries and destitution of the world; by principle, Tell kindled in the mountains and valleys of Switzerland a love of freedom which will never die; by principle, more than by her armies and navies, our own beloved country remains to this day the arbiter of Europe, and amidst all her troubles and perplexities, still possesses the undiminished confidence of the world. It is by the high principles of *individual*, exhibited under trying circumstances, that any nation ever became truly great; and it is by the want of it that so many have decayed away. In the language of Scripture, 'the time would fail to tell' of those deathless names who, through faith in principle, and in opposition to circumstances, 'have wrought righteousness, and waxed valiant in fight' in the moral warfare of the world. The time would also fail to tell of those still more interesting triumphs of principle which are every day exhibited in the quiet recesses of private life—the integrity of dependents, the mutual assistance of the poor, the kindness shown to the aged and infirm, the tenderness which hovers over the couch of sickness, and which seeks out the prisoner in his cell, the benevolence of neighbors, and the faithfulness of friends—these bad as the world is, are sufficient to cast a halo of moral greatness over the destinies of man, which *circumstances* can neither give nor take away.

PRINCIPLES OF BANKING.

BY N. BONNEFOUX.

Investigation of the true Principles that Paper Money ought to be based upon.

Men who have made it their study to investigate the peculiarities of the human mind, have found out that it is prone, in its eagerness after knowledge, to be over ingenious in its attempts at discoveries, and that the proper application of *simple* principles is generally lost sight of by

the most talented men existing; those principles wherewith they are familiar from their infancy, appear to be *below their mental vision*, they are all the time stretching upwards the powers of their minds to discover something *new*.

Numberless instances might be given, confirming the strict truth of the above observation. The following one is striking.

The Greeks and the Romans were well aware of the principle which was the cause that their wheeled chariots rolled faster on a *smooth* surface than on a *rough* one; they were well aware, moreover, of the great advantages of rapid communication and quick travelling; they had the materials and the capacity to make *rails*, and yet, they never thought of making the proper application of the *simple* principle they were familiar with, to the construction of *rail-roads;* thousands of years have elapsed since, carrying away innumerable generations of ingenious and scientific men, and it is only within less than half a century, that the *proper* application of said *simple* principle has been made.

The propriety of the above remarks, as an introduction to the subject that it is intended to treat herein, will soon be perceived by the intelligent reader.

The general suspension of the Banks which took place in 1837, led the writer of this article to investigate the general system of our currency, and he became convinced, not only that the system of said currency was erroneous, but that the system of *Paper Money* itself, was based upon a *radical error*. The broad truth flashed to his mind, that the *true* principle that *Paper Money* ought to be based upon, had been disregarded and overleaped, on account, no doubt, of its *simplicity;* but in order that the result of his investigation may be easily understood, a few condensed, preliminary remarks, as to the origin and progress of Banking, will be found necessary.

Gold and Silver have been used by nearly all ancient and modern nations, as a means of exchange and barter for all articles of first necessity, raw materials, manufactured goods, and generally, all kinds of *property* whatsoever; the comparative scarcity of those precious metals, and the convenient form and weight of the fractional parts thereof, which constitute what has been called "Money," have, no doubt, been the principal reasons which have induced nations, generally, to adopt Gold and Silver as the *representatives of property*.

Paper Money is an invention of modern times. The persecution against the Jews, in the middle ages, led them to contrive means which might enable them to remove the value of their Gold and Silver from one country to another, without transporting with them the precious metals which excited the cupidity of their oppressors; Bills of Exchange, and Promissory Notes, were then devised.

Banks, issuing certificates on deposits of gold or silver, were first established in Venice, Genoa, and Amsterdam. The depositors of the precious metals received these certificates, or checks, and used them in their mercantile transactions as representatives of their gold and silver, saving thereby, (by paying the Bank a small commission,) labor, transportation, and risk of robbery. Thus far, banking was based on a safe principle. (The certificates issued, never exceeded in amount the total of the gold

and Silver deposited.) In the meantime, the discovery of America, increased greatly the foreign commerce of Europe; Cadiz, Lisbon, London, came to be great marts of trade. At last, Banks were chartered, with the *exclusive privilege* of issuing their own promises to pay, and the bills containing those promises, were called *Paper Money.*

Paper Money became, in a short time, an instrument of immense power for extending commerce, manufactures, and civilization. It actually invaded, revolutionized, and controlled the mercantile transactions, and the political relations of the whole world; the extent of its effects will appear incredible, if we compare with proper discrimination what has taken place since the last 100 years, to what would have been the probable situation of things, if gold and silver had continued to be the only token of value, that is, the only means for effecting purchases, exchanges, and barter, generally. But there is a great drawback to the important results that have been obtained; immense national debts and periodical revulsions in prices, producing bankruptcy, ruin, and misery, on a great scale, are the concomitants of *Paper Money*, such as it has been regulated to this day. All the plans that have been tried to give it stability, have failed, and the reason why, is, that the system is based upon a *radical error.* Said radical error consists in having made *Paper Money* the *representative of gold and silver.* This is a *fiction*, that has the effect of reality, *only* so long as confidence exists. The moment that a demand for specie is sustained for a few millions, panic and ruin are the inevitable result, and the reason is obvious. We have, by instance, in the United States, about $80,000,000 of Gold and Silver coin: out of that amount, the Banks have about $30,000,000, and the amount of Paper Currency issued thereupon, is very likely as high as $150,000,000, and there is, besides, an immense amount of floating capital, in the shape of deposits and vouchers, payable on demand, so that the aggregate total thereof, cannot be much less than *five* dollars of paper, *payable on demand*, for every *one* dollar of specie in the country. The consequences of having an estab lished monetary system, composed of such elements, are the following: First, that an attempt to return to a pure metallic currency, is obviously impossible. Second, that so long as *Paper Money* is made to promise to be the *representative of gold and silver*, so long we will be exposed to the evils above described: that is, that a demand of six or seven millions of Specie to settle balances in our foreign commerce, will invariably unsettle and paralize the immense interior trade, and the extensive transactions of this wealthy country.

The aggregate amount of the products of a country, constitute its real wealth.—According to this uncontrovertible definition of wealth, there is no country on the face of the earth so rich as the United States, and yet the sudden exportation of a few millions of dollars in gold and silver coin, will disorder the currency and create panic and revulsions, which will be felt all over the various States of the Union. When we take into consideration that the amount of coin exported is insignificant, as compared with the immense *available* wealth of the country, the fact of such a ruinous result will strike the investigating mind with a conviction that there is something *wrong* in our monetary system—that it is not in harmony with the state of society as it now exists.

Well, the purport of the preceding remarks and explanations, has been to ascertain what it was, *that is wrong*, and the *drift* of the argumentative part thereof has been intended, moreover, not only to show that *Paper Money* has been to this day, a *mere fiction*, based upon *a radically erroneous principle*, but also, to prepare and enable the reader to conceive how *Paper Money* can be made a *substantial truth*. Make *Paper Money* the direct representative of *property*, and this true and sound principle will give the means of establishing a monetary system, whereof the basis will never fail. Let that system be established by *law*, with such plain and easily understood restrictions that will command the confidence of the community as to the scrupulous fulfilment of the fundamental rule, which ought to be the basis thereof, viz:—That the property hypothecated be ample security to the bill-holder, and that it be of such a description, as to be divisible in fractional parts, so as to be made readily *available*, whenever necessary,—and the important question is solved—Gold and Silver become merely merchandise,—and any quantity thereof might be exported without disturbing in the least the currency of the country. We would thereby become truly independent—and our immense inland commercial transactions would be no longer under the influence of the fluctuations which are inseparable from mercantile operations with foreign countries.

A certain class of *Paper Money* has been issued for the last nine years, by some Banks in this State, which might, *by law*, be made a *direct* representative of *property*, and yet, no one appears to suspect the immense advantages that would accrue to the whole community by making such kind of paper money the *legal currency* of this State. The 2nd and 3d Sections of an "An Act to authorise the business of Banking," (passed April 18, 1838,) contain, actually, the inception of the system of *Paper Money*, which has been ascertained from the above disquisition to be based upon the *true* principle. That system cannot, however, be legalized in all its bearing by our Legislature, because the Constitution of the United States prohibits the States from coining money, and from making anything but Gold and Silver coin a tender in payment of debts. But our Legislature could carry the obvious intent of the 2nd and 3d Sections, by a few clear and provident provisions that would secure the religious fulfilment of the fundamental rule above laid down, namely: "That the property hypothecated be ample security to the bill-holder, and that it be of such a description as to be divisible in fractional parts, and made readily available whenever wanted;" and, if the Free Banking Law were amended, according to the draft that is alluded to, pages 17 and 18, the advantages that would accrue therefrom, to this State, and to the community at large, would soon become apparent; for, although the Bills of the Free Banks would continue to be exigible to be paid in Specie, yet the fact of their being wholly secured, (with ample margin,) by New York State Stock, would greatly diminish the want of Specie for Banking purposes, and its exportation to settle foreign balances would not be felt, by any means, to the extent that it is now, and, in proportion as the number of the existing Safety Fund Banks would decrease, the advantage of this Free Banking System would become still more manifest, so that other States would, probably, enact free Banking Laws, under the same system,

and if a great majority of the States were to do so, there would be no difficulty in obtaining an amendment to the Constitution of the United States, to the effect of allowing the States to issue *Paper Money* by making it a *direct* representative of *property*, according to the fundamental rule above explained. The various sovereign States of this confederacy, would then have a legal right to *coin money* out of paper, and this *application* of inherent right of sovereignty which they ought not to have given up, would, altogether, shelter their currency from the fluctuations consequent to the issue of *Paper Money* which *promises* to be a *representative of Gold and Silver*. On the other hand, the General Government would continue to receive and pay out its dues in Gold and Silver coin, which fact would have a tendency to keep in the country a large amount of Specie. Said Specie would be used, mainly for paying government dues, and for small change, it would be, therefore, a mere mercantile commodity, and it might increase or diminish without any material inconvenience.

The system of *Paper Money* restricted as herein advocated, might be introduced in France, England, &c., with great advantage; there would be, however, considerable danger that the *central government power* of those countries would, in times of financial embarrassment, increase the amount of issues, or else, that the public debt might be repudiated, &c.; and the feature pointed out in the last paragraph, as to the complete independence of our General Government, in regard to finances, renders the system of coining money out of paper one of peculiar fitness to constitute the *monetary system* of this confederacy of sovereign States, as the *action* of our General Government would be limited to *that* of a wholesome Financial REGULATOR.

In conclusion, the writer of this "essay" is well aware of the difficulties that the adoption of the true system of paper money will have to contend with—nothing is more difficult to eradicate than ERROR, when it has got rooted into the habits of nations. He believes, nevertheless, that the community would soon understand the great advantage of this system, and that it would soon appreciate its safety and have full confidence therein, if the Legislature would regulate it, once for all, understandingly. This is, indeed, the greatest difficulty to overcome, as a majority of our legislators appear to be bent upon making laws *that require revising once or twice every year*. The hopes of the undersigned are not, therefore, very sanguine as regards the overcoming of said *main difficulty*, but being firmly convinced that the system herein advocated, is based upon substantial *truth*, he considers it his duty to the community to give it publicity.

The extracts underneath, contain views on the subject of *paper money* which have struck me as being somewhat congenial with my own. The reader will remark, by referring to the *original*, that the *translation* is not literal; many of the French sentences appearing to be vague and indefinite, it has been attempted to make them *precise*, in a practical point of view.

At the present time, when the financial situation of France appears to be analogous to that described by Mr. Lamartine, the views of that distinguished statesman on paper money, may have considerable importance.

But although the financial situation of the French Republic appears at first blush to be nearly the same, there is in fact a very material difference. A system of *paper money* might yet be devised, that would, in time, and with proper republican reform in her expenditures, extricate her finances from its difficulties, and enable her to pay the interest of her immense debt, and create, besides, a sinking fund to decrease it.

Extracts from the History of the Girondins, by LAMARTINE, *pages* 81 *and* 82.

"Operatives were without work, and rich people, to escape spoliation, assumed the appearance of poverty. The nobility and the clergy had either carried away or buried underground an immense amount of gold and silver coin, and thereby left the people without these convenient tokens of value to facilitate exchange and barter: they were in fact almost bereft of a circulating medium to compensate work and to promote industry."

"In order to make up for the scarcity of gold and silver, the *Assemblee Constituante* had created a kind of *paper money*, generally known under the appellation of *Assignats*, trust and confidence were to be the basis of that *paper money*, and it would have had the same effect as metallic money if the people had been willing to comprehend its principle and to adopt it. It would have given activity to industry, paid the taxes, represented the price of land, and that of property. Money, whatever some economists may say to the contrary, has no other value, in a general sense, than that which is given to it by force of the law, or by the general agreement which creates it, and the confidence and the credit which thereby attaches to it, is a matter of course; but in order to ensure this last point, the relative proportion between things and property bought, and the token agreed upon to purchase them ought not to be suddenly and arbitrarily exchanged by any reckless increase of said monetary token, and whenever that proportion is well known to be a substantial truth, the real price of property will settle down, and be firmly established, according to said proportion."

"Law only, and an honest and provident law, can, therefore, *coin money*, but it matters not whether law coins money out of metallic fractional parts or out of *paper*, provided, as stated above, the proportion of the issues of the money, or token agreed upon, and the amount of property hypothecated to represent it, be scrupulously the same, so that the community may have entire confidence in its full value."

"Bills of exchange are nothing else than paper money issued by an individual without any other security than the signature of the person who creates it, and yet, transactions of the greatest magnitude, which would, otherwise, require a continual transportion of an immense amount of specie or bullion to accomplish, are, thereby, effected with the greatest simplicity. These bills, in most cases, are equal to gold and silver: they are, however, in fact, nothing else than *money coined* by a sole individual, the *confidence* of people in said individual imparts *the value*. No possible doubt can be entertained but what the state government can coin paper money, not only as good, but still more undoubted than that issued by an individual; particularly, when we take into account that the state represents the property and credit of the whole community. But on the other hand the community has been accustomed for ages to the use of gold and silver; the feel, and the weight thereof appeared to them to constitute its value, and it was natural that they could not entertain confidence in paper money before the truth of the above position had been tested by actual practice; whenever a truth, however self-evident it may be, runs counter to old established notions, the advocacy thereof will be at first mistrusted, and considered as a snare."

"Time and experience would, however, have soon demonstrated the fallacy of these old notions, if the fundamental principle which forms the basis of the views above expressed, had been strictly adhered to, but the wants of the revolutionary government were pressing. They increased recklessly, the issue of the *Assignats*, destroying thereby the proportion which ought scrupulously to have been kept, between the aggregate amount of these tokens of value and their means of redemption. The experiment, therefore, proved to be a failure."

NEW YORK, Jan. 30th, 1848.

MR. M. FILLMORE, Comptroller, Albany.

SIR,—The Legislature, by demanding quarterly *reports* from banks, intends, no doubt, that the reports will exhibit their *true condition*. The 3d section of the act of August 18, 1843, lately amended by another act, passed Dec. 4th, 1847, provides *the items* for a form of statement which has been drawn up according to such an intention, as appears by the following heading thereof: "*Statement* showing the *true* condition of, &c."—Capital stock banks, whether corporate or under the general banking law, may, in fact, by making their report according to the form of statement aforesaid, exhibit their *true* condition, but this *will not be the case* with the individual banks. A report from the individual banker, according to *said form*, will not show the *true* condition of his affairs. It is a mere mistification.

According to the printed form of the statement whereby banks are required to make their report, the *capital* of the bank is set down and reported under the head of *liability*, this is the proper place to set it down as regards *capital stock* banks, as said *capital* is a *debt* from the bank to various stockholders which have nothing to do with the management of the bank; but when there are no stockholders to render an account to, when the bank is owned by *one* individual, there is no capital in the sense understood and defined in the general banking law. It is obvious that the whole amount of means which constitute the capital of the individual banker, constitutes altogether his *resources;* and a *correct report* of his financial position, (viz: *true* condition) ought to set down the whole of those means under the head of resources.

The individual banker is not bound by law to keep on hand any specific amount of specie. It has been wisely thought that the risk of forfeiting his security will be sure to command his keen and earnest attention to keep constantly on hand sufficient available means to redeem in specie any amount of his circulating notes which may be presented to his counter; this, with common prudence and foresight, he can easily do by proportioning his issues to his daily available means; but in order that the public might judge of the degree of prudence and foresight exercised by every individual banker, the form of statement intended for the report of individual bankers, ought to be drawn up so as to throw light on the amount and kind of his available means as compared with the amount of his circulation, and the weekly and monthly average redemption of his issues. Thus, by instance, the banker who will keep up a circulation of $95,000, or over, out of, say, $100,000 of circulating notes received by him from the Comptroller, will not command so much confidence, as the one who will only issue $75,000, or less on the same amount, &c.

The statement which you shall find herein enclosed has, by means of erasures, additions, alterations, and remarks, been made to give an idea of what ought to be the form of the statement, according to which it would be proper for individual bankers to report. But I intend to draw up one more simple and *more to the purpose*, which I will forward to you, together with a pamphlet on free banking now under press.

The committee who prepared the bill for the amendatory act of Dec. 4th last, ought to have taken the trouble to consider the *nature* of the *items* required to be reported by the individual banker in the 3d section thereof. They would have discovered, that the form of statement drawn up from those items is obviously intended for capital stock banks, and that they are not, in said form, at all applicable to the banking business of the individual banker.

The requirement of a report without providing for a *proper* form of statement is altogether nugatory, as the point has been settled by the highest legal authorities, that a legislative enactment which is based on an erroneous assumption is null and void.

I conclude by submitting the case to you, with due deference, that the attention of one of the bank committees might be called to remedy the defect which I have pointed out.

Respectfully, &c., L. BONNEFOUX.

BANK STATISTICS.

BANK OF CHARLESTON, SOUTH CAROLINA.

AT the annual meeting of the stockholders of the Bank of Charleston, HENRY W. CONNER, Esq., president of the Institution, submitted the following report:

Bank of Charleston, S. C., July 5th, 1848.

GENTLEMEN:

The president and directors of the Bank of Charleston, S. C., have the pleasure to submit to the stockholders their usual annual statements, showing the condition of the bank, and the result of its business for the past year.

These statements consist of the profit and loss account, the contingent fund account, the cashier's statement showing the state of the Bank on the 30th June, the monthly statement of liabilities and resources, and the report of the suspended debt committee—all of which will be found annexed in their respective order.

The net profits of the year, after deducting current expenses, amount to - - - - - - - - - - $377,287 87

From which two dividends of 3 per cent. each, have been declared; amounting to - - - - - - 189,648 00

having a surplus on the business of the year of $187,639 87, which has been carried to the credit of the contingent fund account.

The losses accruing in the same time upon transactions of the past year, amount to the sum of - - - - - - $26,186 09

Which with the further sum of - - - - - - 19,374 82
ascertained to be bad in the suspended debt of last year,
And a bond debt of - - - - - - - - - 14,624 13
referred to in the committee's report of last year as doubtful,
Making together the aggregate of - - - - - $60,185 04
which has been charged to the account of "losses chargeable to the contingent fund account."
The contingent fund account, with the debit and credit just referred to, added, shows a surplus of - - - - - - $262,608 24
This account has, however, been charged with - - 189,648 00
which sum has been carried to a "reserved profit account," leaving still a balance to the credit of the contingent fund account of - - - - - $72,960 24

It has long been the anxious desire of the board, to form this reserve fund, not only as a protection to the bank, but as a surety to the stockholders for the usual dividend, under almost any contingency that could happen. The surplus profits of last year, amounting to $68,254 89, added to the large surplus of the present year, has happily enabled us to set apart for that purpose, a reserve equal to 6 per cent. upon the capital, and to still retain to the credit of the contingent fund account, the sum of $72,960 24, which is deemed more than adequate to cover any possible loss from the suspended debt account.

In view of this reserve fund, and a surplus to be retained under all circumstances, amply sufficient to cover outstanding risks, it will be for the board hereafter to declare such extra dividends as the profits of the bank for the time may justify.

The general condition of the bank on the 30th June, being the close of our fiscal year, is fully set forth in the cashier's statement. The following statement represents the condition of the bank, in reference to its cash liabilities, and cash resources on that day, viz:

		Gold and Silver coin,	$389,739 08
		Bills of other Banks,	100,758 00
Bank Notes in circulation,	$753,510 00	Due by Agencies,	197,224 25
Due to City Banks,	1,724 37	Due by City Banks,	14,203 75
Due to Depositors,	333,894 62	For. and Dom. Exchange,	1,076,094 00
Due to Distant Banks,	321,547 14	Due by Distant Banks,	363,996 83

The tabular statement annexed will show the position of the bank in reference to its liabilities and resources every month, with the course of its business in all departments throughout the year.

The suspended debt account, embracing everything lying over under protest, under any circumstances whatever, amounts at present to - - - - - - - - - - - - $187,498 65
From which may be deducted funds received and held by the cashier in trust, - - - - - - - - - - - - $8,235 43

Every claim that was considered bad in this account had been previous to this date, stricken off under the direction of the committee on suspended debt, as per their report herewith annexed.

The claims now forming that account it will be seen, have been classified by the committee into three classes:

The first considered good, the most of which will be paid at an early period, amounting to - - - - - $118,896 62

The second refers to claims of more remote and uncertain collections, but of which there is a reasonable expectation that the larger portion, if not the whole, will be realized sooner or later, and amount to - - 58,219 03

The third embraces claims that are not expected to be paid in full, amounting to - - - - - - - - 10,383 00

In the first class is included French exchange protested for $12,262 71. This claim is good at both ends, and arrangements are now in progress for taking it up. Besides this amount, we have little else outstanding in France.

In our transactions in sterling exchange, we have sustained no loss for the past year.

The nature and extent of the business of the bank for the past year, will be understood by the stockholders from the following statement:

Sterling Exchange purchased from 1st July, 1847, to 1st July, 1848, -	$3,490,662 66	
French do. do. do. -	282,889 82	
Domestic Exchange purchased, - -	6,186,515 82	$9,960,068 30
Notes discounted, - - - - - - - - -		10,447,026 44

The bank has also furnished Northern exchange by its checks on New York, Boston, Philadelphia, and other Northern cities, without ceasing to check a single day, from 1st July, 1847, to 1st July, 1848, - - - - - - - - - - $7,642,234 86

The cash assets of the bank have been carefully examined several times during the year, by committees from the board of directors; the last of which was on the 30th June, and all found right.

We may also mention that there has been received within the year, from old debts long since charged as bad, the sum of $9,090, and from our continued attention to these claims, additional sums it is hoped will be realized.

These statements will enable the stockholders to obtain a correct view of the operations of the bank for the past year, and the result, we trust, will be found satisfactory.

Since the last meeting of the stockholders, we have to lament the death of one of our most highly respected directors, Mr. Jonathan Lucas. The board will probably not find it necessary to fill the vacancy in the direction, before the annual election in November next.

H. W. CONNER, *President.*

Report of the Committee on the Suspended Debt

The suspended debt of the bank, as reported on the 1st July, 1847, was $57,992 63, to which was added a bond for $14,624 13, considered doubtful, which made the total suspended debt at that time, $72,616 76

Of this debt there has been collected since - $8,343 50

And from real estate received in security for a portion of it, - - - - - -	18,000 00	
And there has been charged to the account of losses, chargeable to contingent fund,	33,998 95	60,342 45
Leaving the balance of suspended debt of July, 1847,		$12,274 31
The suspended debt of this year is - -	$201,410 43	
Of which there has been charged to losses, chargeable to contingent fund - -	26,186 09	175,224 34
Making the total suspended debt this day, - - -		$187,498 56

The suspended debt has been swelled this year by the large amount of foreign and domestic exchange which is at this moment in a state of suspension, caused by the recent calamities in Europe, but as it is nearly all of it secured and in a course of settlement, it will very soon be taken out of the account.

That a correct idea may be formed of the character of the suspended debt, the committee has divided it into three classes.

No. 1 consists of debts that are deemed good, and the most of which will be paid at an early period—this class amounts to $118,896 62.

No. 2 embraces debts that are more remote, and less certain of collection, but of which there is a reasonable expectation that the larger portion, if not the whole, will be realized sooner or later. This class amounts to $58,219 03.

No. 3 are debts that will not be paid in full, although it is certain that more or less will be obtained from them. This class amounts to $10,383.

The committee would also further report as belonging to this class a debt due by Reid, Irving & Co., of London, of $25,267 27—what will be received of it is uncertain, but it is supposed that the dividend of their estate will be small.

Banks in South Carolina that publish (under late amendments to their charters) monthly statements of their affairs, viz:

	Capital.
Bank of the State of South Carolina,	$1,123,357
South Western Rail Road and Banking Company,	869,426
Planters and Mechanics Bank,	1,000,000
Union Bank,	1,000,000
State Bank,	1,000,000
South Carolina Bank,	1,000,000
All the Banks in Charleston,	$5,992,782

Banks that are not required by their charters to publish monthly statements, viz:

	Capital.
Bank of Charleston, at Charleston,	$3,160,800
(This Bank makes full statements annually to their stockholders.)	
Commercial Bank, Columbia,	800,000
Bank of Hamburg, Hamburg,	500,000
Merchants Bank of Cheraw, S. C.,	400,000
Bank of Camden, Camden, S. C.,	377,500
Bank of Georgetown, Georgetown,	200,000
Total,	$5,438,300

Comparative view of the liabilities and resources of the Bank of Charleston. Compiled from the Annual Reports of 1846, 1847, 1848.

Liabilities.	July, 1846.	July, 1847.	July, 1848.
Sterling Exchange, bills sold,			$1,504,288
Capital,	3,160,800	3,160,800	3,160,800
Due to Distant Banks,	391,230	624,458	321,547
Due to City Banks,	14,833	4,440	1,724
Due to Agencies,	432,030	193,245	
Deposits,	539,220	473,685	336,318
Dividends unpaid,	9,047	8,517	8,279
Discount, Premium and Interest,	165,066	180,525	298,865
Contingent Fund,	266,610	309,490	379,461
Circulation,	1,061,114	1,332,228	753,510
Total liabilities,	$6,039,950	$6,287,388	$6,880,287

Resources.	July, 1846.	July, 1847.	July, 1848.
Bills Discounted,	$1,741,543	$1,207,564	$1,603,326
Domestic Bills of Exchange,	1,046,300	922,164	488,475
Sterling Exchange,	531,102	1,024,425	2,034,800
French Exchange,	319,728	319,872	56,107
Bonds and Mortgages,	460,400	421,365	382,354
Suspended Debt,	156,817	86,177	187,500
	4,255,890	3,981,567	4,752,562
Due by Distant Banks,	340,228	239,502	363,997
Due by City Banks,	4,038	30,580	14,204
Due by Agencies,	205,322	250,462	197,224
Foreign Premium Account,	51,878	79,054	52,180
Bonus for Charter,	53,125	47,500	41,875
Real and Personal Estate,	90,961	69,896	64,616
Expense Account,	15,602	16,790	17,462
Louisville & C. R. R. Bonds,	270,560	378,753	505,868
Miscellaneous Stocks,	86,132	45,511	24,972
U. S. Six per cent Stocks,		430,000	50,000
Losses chargeable to Contingent Fund,	201,585	249,856	300,620
Profit and Loss	11,105		
English Letters of Credit	888		3,111
Notes of other Banks,	55,305	44,112	101,858
Specie on hand,	397,331	423,803	389,739
Total resources,	$6,039,950	$6,287,386	$6,880,288

BANK OF GEORGETOWN, SOUTH CAROLINA.

Annual Statements, 1846 *and* 1848.

Liabilities.	8th June, 1846.	30th June, 1848.
Capital Stock,	200,000	200,000
Circulation,	322,786	225,657
Individual Deposites,	30,204	19,245
Surplus Fund,	13,184	29,946
Total,	$566,174	$474,848

Resources.	1846.	1846.
Notes Discounted,	200,130	227,219
Suspended Debt,	10,983	13,706
Exchange on New York and Charleston,	198,775	119,610
Specie balances New York and Charleston,	141,086	105,312
Bonus and Bank Fixtures,	5,200	3,500
Real Estate,	5,000	5,500
Stock Bank of Georgetown,	5,000	
Total,	$566,174	$474,848

FIXED AND FLOATING CAPITAL.

BY JAMES WILSON, ESQ., M. P., EDITOR OF THE LONDON ECONOMIST.

THERE are certain questions of the highest importance to a clear understanding of the changes which are constantly taking place in what is popularly termed the "*money market*," of a character too difficult and abstruse to command, under ordinary circumstances, a sufficient attention from the active man of business, in order that they should be fully understood. The only time when we can hope usefully and entirely to arrest public attention to such questions, is when the current events of the day clothe them with more than usual interest, and when every man is disposed to give his whole attention and intellect to their consideration, in order the more safely to govern his own policy at a time of existing or expected difficulties. Such an opportunity is the present moment, for the arrival of which, we candidly admit, we have been for some time waiting. It is impossible to conceive that at the present moment, when just a sufficient amount of the predicted disturbances of the capital and finances of the country is disclosed to public observation, tending to create a general belief that much more serious developments of the same elements remain behind—that those who are deeply interested either in the commerce or the finances of the country will be unwilling to devote the whole of their powers of mind to a clear comprehension of passing events, and of the causes by which they are governed. Many have been deterred from a sufficient attention to these subjects from an exaggerated notion of their abstruseness and difficulty. We shall, therefore, in the remarks which we are about to make upon the great elementary causes which regulate the "*money market*," and their influence upon the present passing events, use terms and language as popular and simple as possible.

The three first great primary points, without a clear understanding of which to start with, all attempts usefully to discuss the subjects of *Bank-*

ing, Currency, or the "*Money Market*," must be a mere waste of time, and a further bewilderment of bewildered notions, but with a clear understanding of which, the whole science of capital and money becomes comparatively simple to the commonest understanding, are—

Firstly—What really constitutes capital?

Secondly—What constitutes the difference between fixed and floating capital?

Thirdly—What constitutes the difference between capital and currency or circulation?

Without clearly understanding these three points, all attempts to draw correct deductions from passing events with respect to the "*Money Market*" will be entirely vain; with a familiar and clear understanding of them, it will be a comparatively easy and simple task. We propose, therefore, shortly to consider these three points in as popular a way as possible, before we pass to a consideration of the present state of the "*Money Market*," and the claims which exist upon the capital of the country. With respect to the first point of consideration—

WHAT REALLY CONSTITUTES CAPITAL?

There is a much more general and accurate notion than of the other two points. This question has been so often treated in a clear and distinct manner, that we do not propose to dwell much upon it. It is generally and clearly understood, that capital, in the broad sense, means labor accumulated in such a form as to facilitate future production. The savage who hunts and fishes just enough, with the simple means which nature provides, in order to supply his wants, neither possesses nor accumulates capital. But the moment a savage spends any portion of his time in constructing an implement which facilitates his hunting or his fishing, so as to enable him to procure more food with the same labor, that moment he is possessed of capital, consisting of such implement, the value of which is determined by the extent of the facility which it affords in acquiring food. This capital, consisting, for example, of a net, has two values; one which would be measured by the time and the skill expended in constructing it, which would determine the price which another person would be willing to pay for it by purchase, and another which would be determined by the profit or facility which its use would afford, and which would determine the price which a person would be willing to pay for the loan of it. The first value is the *selling price*, the second is *rent* or *interest*. If, in such an early stage of a community, only one person accumulated capital, that is, procured as much food as he himself consumed, and made nets besides, it is clear that he could not *sell* his nets, because no one else possessed more food than he actually consumed; but it would be quite possible at once for any one to *rent* such nets, and to pay a portion of the extra food which he was able to obtain by its *use*, for the *loan* of it. As soon, however, as the *use* of this net enabled the borrower of it to obtain as much food as was sufficient to support him, to pay the stipulated quantity for the *use* of the net, and to leave him sufficient leisure to make a net for himself, or to buy the net, he would become the *owner* of so much capital, in place of the *renter* of it

Thus, the capital of every individual would increase just in proportion as he produced more than he actually consumed, and the value of this accumulated labor would be proportioned to the facilities which it afforded for future production. If a man expended the labor of a year in the attempt to make a machine, which at length gave no new facility in production, he would add nothing to his capital; but if his labor was expended in improving the soil or making an implement, which would in future enable him, with the same quantity of labor, to produce more food or clothing, he would have added so much to his capital—which improved land or implements he might either sell for a price, or lend at an annual rent. What is true with respect to an individual, is equally so with a whole community. In proportion as a country produces more than it consumes, and in proportion as the extra labor or income from rents or interest, which must be all paid out of labor, are invested in profitable means of future production, does its capital increase. From the most simple to the most complicated state of society, all capital, therefore, represents accumulated labor, and is valuable just in proportion as it has been invested in means calculated to facilitate future production. In the earliest stage of society, the net which represents the first saving or accumulation is valuable just in proportion as it is calculated to facilitate the natural and unassisted means of catching fish. In the most refined and complicated state of society, the machine, the railroad, or the ship, in which the accumulations of individuals are invested, add to the general amount of capital just in proportion as they facilitate and cheapen production or profitable exchanges, and that facility determines the price which people will pay for their purchase, or the rent which they will give for their use, as the case may be. It is, therefore, clear that capital consists of all improvements in the natural elements of productions—of all implements which facilitate production—and of all commodities which, though produced for consumption, yet the value of which will be replaced to the producers, from the incomes of those who consume them. Thus, permanent improvements on land, by which larger crops are raised with the same labor; improvements in water-courses, rivers, or docks, the construction of canals, roads, or railways, which facilitate intercourse and the exchange of commodities; buildings, ships, machines, cattle; all implements for reproduction, and commodities of every description, such as cloth, wheat, sugar, gold, silver, iron, &c., which are produced for the purpose of sale, the price of which is to be replaced from the income of the consumers, while the profit only is to be consumed by the producers, constitute the capital of a nation. Whatever adds to the efficiency of any of these elements of production increases the capital of a country, as, for example, the application of steam to ships, machinery, and railways, while anything which injures or destroys them, such as fires, shipwrecks, &c., abstracts so much from the capital of the country. The recent inundations in France have subtracted as much from the capital of France, as it will require of labor to restore the mischief they have done. So with regard to the effect of seasons on the productions of wheat, cotton, or other articles, while, in an abundant year, more is produced than is sufficient for the consumption

of the year, the surplus goes to accumulation, and constitutes so much capital, so, in a deficient year, when the produce is not enough for consumption, the accumulation of former years must be used to make up the deficiency, and thus the capital of the country is reduced.

The next point which we would consider is,—

WHAT CONSTITUTES THE DIFFERENCE BETWEEN FIXED AND FLOATING CAPITAL?

This is is a point, with respect to which much greater obscurity exists than the one which we have already examined; it is one also on which though the most important practical questions and considerations arise, yet which we believe has not yet met with such a clear and explicit explanation as to enable men of business readily to distinguish between the one and the other in the numerous cases which are constantly arising in the application of capital, and where a clear understanding of the distinction is of the first consequence. A want of a clear understanding upon this point has, we have little doubt, had the effect of causing losses to the community of this country to the extent of many millions during the last two years, as a consequence of obligations which have been undertaken, which, had this distinction been clearly understood, would not have been entered upon.

We will endeavor to do something towards clearing up this important point. Every accumulation of capital furnishes a certain command over labor, and can only be rendered productive by the employment of labor. This labor may, however, be used for the production of two distinct classes of commodities. It may be applied to the production of implements, the improvement of land, the building of houses, or the construction of roads, all for the purpose of facilitating further production, or it may be employed for the purpose of producing commodities for the immediate consumption of the community, to be repaid and replaced by the income of the country. In the first case, the labor is fixed, and the profit which is derived from it must be either in the form of an additional facility for future production, or in the form of a *rent*, which some one is willing to pay for the use of such facility. In this case the capital is not itself returned to the owner. In the latter case, the whole capital is returned to the producer along with his profit, paid from the fund constituting the general income of the country. For example, in the first case, a man builds a mill, and fills it with machinery; the mill and machinery present to the owner a facility by which he can more easily produce cloth than hitherto, and this greater facility returns a profit upon the capital thus sunk, analogous to *rent;* or he may let it *on hire* to another person, who is willing to pay *rent* for such a facility thus given. All the profit derived from such capital must be in the character of *rent;* and in all such cases the *rent* or *interest* alone is repaid from the income of the country, included in the cost of the goods, the production of which it facilitates. In all cases, therefore, where the capital itself is not repaid from the income of the country, but only a *rent* or *interest* for its use, it must be classed as *fixed* capital. This applies to houses, improvements on land, navigation, roads, machinery, ships, and all classes

of commodities which form only the means of producing articles of general consumption.

On the other hand, another man who *rents* or *employs* the mill and machinery in producing cloth, and uses his capital for that purpose, employs it in the purchase of wool, and in the payment of wages, and does so upon the faith of selling his cloth at such a price as will replace the whole of his capital so expended, together with the *rent* or *interest* of the outlay of the mill, and with such a profit as will remunerate him for the use of his capital, and the labor in conducting his business. In this case, the whole capital, with the profit, is replaced from the general income of the country, and is again available for the performance of a similar operation, and for continuing the employment of a similar amount of labor. All such commodities constitute the *floating* capital of the country; including agricultural produce, manufactured goods, imported articles for consumption, and, in short, every thing which is fully and entirely out of the income. In all cases of *fixed* capital, the community only pay out of income a charge for the use of a facility analogous to *rent*. As, for example, the fares paid to a railway company by the community, out of the general annual income, are only a consideration for a facility, and in the form of *interest* or *rent*, including the cost of upholding, but do not replace the capital which it cost to construct the railway. On the other hand, the prices paid by the community, out of the general income, for cloth, grain, or sugar, &c., replaces the whole capital expended thereon, leaving the same fund undiminished for the further employment of similar labor, and the reproduction of similar commodities.

The distinction, then, which we make between fixed capital and floating capital is—that all commodities or improvements, for the use of which only the current income of the country is charged—or, in other words, for which the owners only receive rent or interest—constitute the *fixed* capital of the country; while all commodities, the entire cost of which is replaced out of current income, constitute the floating capital of the country. The former class of commodities are stationary, yielding only income; the latter class are constantly circulating, affording a constant means of new employment for their reproduction from the current income of the country.

The two most important distinctions between *fixed* capital and *floating* capital are, first, that the former consists of labor employed only for the purpose of affording greater facility for the production of those commodities required for the daily use of mankind, while the latter consists of labor employed in the actual production of those commodities themselves; and second, that the use of the commodities representing fixed capital, returns no fund from which the same amount of labor can be continuously employed, whereas the use of the commodities representing floating capital returns an undiminished fund, by which the same amount of labor can be again employed. The occupation of a mill, or the use of well-drained land, may add to the income of the capitalist, but the fund employed in the building of the one, or the performance of the other, is absolutely withdrawn, except so far as the additional profit, rent, or produce which they yield is concerned, from the fund for the

future employment of labor, while the fund employed in the immediate growth of wheat or the manufacture of cloth, is returned to the farmer or manufacturer entire, and is again available for the employment of labor to the same extent as before. It is, therefore, quite clear that no community can, without the greatest inconvenience and derangement, increase its *fixed* capital faster than it is able to spare labor from the production of those commodities on which the community relies for its daily subsistence. Under all circumstances it can only be the amount of labor which the savings of the country can command and sustain, that can be applied to the increase of its fixed capital. The time which the savage could spare in order to make his first net, must have been confined to that which was not absolutely required to procure his subsistence; and the fund which any country can set aside to the increase of its *fixed* capital must be limited by the commodities of general use which it produces over and above its consumption, or, in other words, by the savings of the country. This important point will be more plain if we consider, that in fact the wages paid for labor, though nominally in so much money, really consist of the distribution of the commodities used by the laborers in maintaining them during its performance. Whether wages are paid in money, or whether the laborer is, in return for his work, supplied with food and clothing, are one and the same thing.—Now, the whole labor employed in producing those articles of daily consumption, such as wheat or cloth, whether for consumption at home, or for export in exchange for sugar, coffee, tea, or other foreign commodities in common use, replaces in the hands of the employer the whole of the commodities used to sustain it, and leaves the funds for the future employment of labor undiminished. The laborers employed in manufacturing calicoes not only produce as much as they themselves consume of this particular article, but as much as will exchange for any other article which they do consume, besides replacing the capital of their employer. The produce of this labor in calicoes exchanges for the corn and the provision which they consume of home growth, as well as for the sugar and coffee which they consume of foreign growth. Suppose a manufacturer, for the sake of simplicity, to make *one thousand* pieces of calicoes, and that, instead of the payment of money-wages, he distributes amongst his work-people the proper quantity of bread, meat, sugar, tea, and clothing to support them,—his thousand pieces of calico are then distributed in exchange for wheat and provisions to the farmer, for clothing of different kinds to other manufacturers, for sugar and tea to the merchant, who in their turn distribute these calicoes, with other things, to the laborers employed in producing these various commodities; and thus the manufacturer is again possessed of another stock of commodities, to repeat the same operation. By such a process all labor is re-producing the fund for its future support. The introduction of money and credit are merely means of affording additional facilities to this simple operation. This process will go on without any interruption as long as labor is employed in the production of the commodities thus consumed, because every day's consumption and expenditure will be replaced on the aggregate by a similar production; or, in other words, as long as the capital of the country is continued in this *floating* or *circu-*

lating state. But the moment we begin to build houses, to make roads, or to improve navigation, however much they may add to the facilities of future reproduction, while there is the same consumption of bread, meat, clothing, tea, sugar, &c., there is no immediate reproduction of these commodities, or of anything that exchanges for them, however good or profitable an investment such works may be as far as the *interest* or *rent* is concerned which they yield. It is, therefore, clear that they cannot be undertaken, except with the surplus provisions, or capital which is left over and above the quantity required for regular reproduction, and that this quantity must always limit the power of a community to increase its *fixed* capital

In short then, the *floating* capital of the country is that which is employed in the production of all those commodities which constitute the ordinary consumption of the country, or which exchange for such commodities so consumed which are produced abroad, and is at all times *represented* by such commodities in whatever shape they are found; and which is always replaced from the current incomes of the country, whether derived from labor, rents, interest, or profits: while *fixed* capital arises from that portion of labor, which, being over and above that which is required for the immediate production of commodities for current use, is withdrawn from such production, and invested in some way which will yield an annual interest or rent, by affording new facilities to ordinary production, and by thus imparting greater value to the floating capital and labor of the country.

It is, therefore, not difficult to see, that it becomes a most essential thing to the continued prosperity of a country, that its *floating* capital, on which the continued reproduction of commodities of every-day use depends, as well as the continuous employment of labor, should not be withdrawn from those necessary purposes, and converted into *fixed* capital, in a greater degree than the surplus accumulation of the country, after replacing the whole fund needful to continue the production of such commodities, whether of home or foreign growth, will admit. If the *floating* capital of the country is thus misdirected into *fixed* capital, it is quite plain that the ultimate result must be, that as the labor employed in the works representing the *fixed* capital does not reproduce the commodities which are consumed in supporting it, or any commodity which can be exchanged either with the home or foreign producers of such commodities, they must become scarce and dear, and ultimately the fund for the employment of labor must be diminished; and the individuals who withdraw their *floating* capital from its ordinary occupation, and convert it into *fixed* capital, must either to that extent reduce their ordinary business of production, or suffer the greatest embarrassment from the absence of their ordinary capital, however large may be the annual interest or profit derived from their investment.

It is quite true that, for a time, while the process of the conversion of *floating* into *fixed* capital was proceeding, there would be a momentary appearance of great prosperity. It would, in fact, in the first instance, be the same as if we were to expend in labor the *principal*, instead of the *interest*, of our capital, as far as the immediate effect upon the demand for labor, and commodities of daily consumption, was concerned.

The production of commodities required for daily use being unequal to the consumption, they would continue to rise in price; increased importation would follow, as a matter of course; and, as no corresponding commodity had been produced to exchange for such imports, they must ultimately be paid from the existing fund of *floating capital*, in reduction of that fund, and before long a reaction must take place, deeply prejudicial to the general interests of the country, and especially to those of the laboring classes, who will have been exhausting the food on which their future employment depended, without reproducing more. The ultimate effect of such a disturbance or misdirection of the *floating* capital of the country must be to create a great scarcity of it, which will be evinced by the high rate of interest, and ultimately a great diminution in the demand for labor, in consequence of the exhaustion of the fund on which it depends for continuous support.

Having thus worked out the important distinction between *fixed* and *floating* capital, we will proceed, in our next article, to consider the third of the three propositions,—What constitutes the difference between capital and currency or circulation?—and then practically to apply these great principles to the present condition of the country.

PATENT OFFICE REPORT.

Statistical Tables relating to the productions of the United States. From the Report of the Commissioner of Patents, January 1848, 8vo. pp. 661, with engravings Published by order of Congress.

As a means of showing the bearing of our agricultural resources on the whole business of the country, it has been deemed desirable to collect the statistics of the interior trade of the United States.

All has not been effected that was intended; but enough will be found in the tables which follow, to indicate that a perfect development of materials would be exceedingly valuable, and it is believed that such a beginning might with no great difficulty be carried out, so as to furnish the facts relating to the interchange of commodities among the different states, from which every person might make his own deductions; and thus supply the place of much conjectural reasoning, according as one or another theory is embraced as a favorite one.

A few explanatory observations may be useful, before we give the tables:

Our internal trade is carried on as is well known, mainly, by means of lakes, rivers, canals, and rail roads. These form the great lines of communication between the Atlantic and other states. Although the products of fields and sections of the country are concentrated at various points which are the larger or smaller markets for the farmer, by means of their wagons or carts, yet the great masses of such material are poured along through our rivers, lakes, canals, and over our rail roads.

If therefore we would form a correct estimate of the interior trade of our country, we must, so far as practicable, ascertain the amounts which are in transit or which rest at the various points where account is taken of the exports or imports. It is true we may thus have the same produce several times included in the estimate, but this is unavoidable, as no means are afforded us of discrimination between the already enumerated and that which is new. Did our room allow, we could give a variety of materials which we have collected; but we are compelled to condense them as much as possible, though at the hazard of omitting many things which might prove interesting to some readers. We have freely used those public journals and various documents which present to us the best sources of information on the various topics, and as it is not convenient in all cases to make special acknowledgments, we may just say here, that foremost among the journals to which we are indebted for valuable materials, either for quotation or deduction, are the Buffalo Commercial Advertiser, the New York Shipping List, the Philadelphia Commercial List, Lyford's Baltimore Commercial Journal and the New Orleans Price Current. These with a great number of mere local sources of intelligence, such as are comprised in the various newspapers and periodicals which notice the statistics and products of trade, have enabled us to draw together numerous columns of statements respecting the prosperity of our country which are not found in any one volume; and with this acknowledgment we avail ourselves of whatever we may find desirable.

The points on the Atlantic coast to which our interior trade is directed, are Boston, New York, Philadelphia, Baltimore and New Orleans. We know that there are intervening ones, such as Richmond, Charleston, Savannah and Mobile, but it will be sufficient for our purpose to limit our investigations to the five great ones specified. From each of these points there proceed the great lines of communication with the interior, and especially the west, as follows:

From Boston by rail road to Albany and thence by canal or rail road and lakes to the west.

From New York by Hudson river to Albany, thence by canal or rail road and lakes.

From Philadelphia by river, rail road and canal, and rail roads and river Ohio—via Pittsburg.

From Baltimore by Baltimore and Ohio rail road and national road to Wheeling.

From New Orleans by Mississippi upwards and Missouri and branches.

By obtaining, therefore, the amounts of produce on these great lines, we ascertain in a great degree the state of the internal trade of our country, especially if we include the termini: such as Cincinnati, St. Louis, Chicago, and various other points which occur in the whole extent. We have found much fuller materials in reference to some of these lines of transit and points of concentration, than with regard to others. Thus the states of New York, Pennsylvania and Ohio, which are among the largest and possess the greatest number of miles of canal and rail road are most complete, while we have been unable to gather any particulars scarcely, with respect to some of the others.

We have considered the matter of chief importance in this connexion,

to give the agricultural products, among which the export trade of cotton, tobacco, breadstuffs, pork and beef, &c. are prominent. Yet on reference to the tables it will be seen that there are likewise a great number of smaller articles which in aggregate make up considerable sums, and which could not well be omitted.

Time did not allow us to go through all the lines of canals with the same degree of minute condensation we have adopted in respect to the canals of Ohio, nor did we possess as ample means for the purpose. The different modes of reckoning applied to the same article on the different lines has likewise occasioned some inconvenience, as well as the periods of time which do not always coincide. Our aim has, however, been to give a fair comparative estimate, in some instances embracing only the years 1847 and the previous one, in others it extends further back.

Prices of Provisions in New York, from 1823 *to* 1847 *inclusive.*

The following table of the average prices of provisions in New York for twenty-five years will be found useful to many readers:

Year.	Mess Pork.	Prime Pork.	Mess Beef.	Prime Beef.
1823	$13 31	$9 78	$8 53	$5 88
1824	13 78	10 32	8 58	5 82
1825	13 83	10 22	9 04	5 95
1826	11 55	7 84	9 35	5 13
1827	13 21	8 62	9 23	6 37
1828	13 71	10 06	9 55	6 67
1829	12 79	10 24	9 43	7 38
1830	13 64	9 87	9 24	6 14
1831	14 30	11 13	8 51	5 77
1832	13 77	11 22	9 75	5 80
1833	14 97	11 53	9 77	5 96
1834	14 29	10 21	9 57	6 05
1835	16 96	13 08	11 26	7 75
1836	23 13	17 65	11 42	7 48
1837	21 66	15 99	14 28	8 85
1838	21 97	16 59	14 98	11 40
1839	19 32	15 72	14 93	11 04
1840	15 07	12 96	12 98	8 90
1841	11 36	9 48	9 25	5 89
1842	9 27	7 23	7 85	3 94
1843	10 32	8 59	7 46	5 18
1844	9 28	7 39	5 75	3 75
1845	12 13	9 51	7 64	5 46
1846	10 50	8 73	7 44	5 23
1847	15 00	12 58	11 25	8 41

The highest year for pork (mess) was 1836, when it reached $23 13; the lowest, 1842, when it was down to $9 27. In 1838, mess beef rose to $14 98; and in 1844, fell to $5 75.

Estimate of the value of the products of labor and capital in the United States for the year 1847.

Articles.	Quantities.	Prices.	Value.
Agricultural Products.	Bushels.	dolls. cts.	Dollars.
Wheat,	114,245,500	1 20	137,094,600
Indian Corn,	539,350,000	40	215,740,000
Barley,	5,649,950	80	4,519,960
Rye,	29,222,500	65	18,994,625
Oats,	167,967,000	25	41,966,750
Buckwheat,	11,673,000	50	5,836,500
Potatoes,	100,950,000	20	20,190,000
Beans,	25,000,000	1 00	25,000,000
Peas,	25,000,000	1 20	30,000,000
	Tons.		
Hay,	13,319,900	8 00	106,559,200
Hemp and Flax,	116 207	150 00	17,431,050
	Pounds.		
Tobacco,	220,164,000	05	11,008,200
Cotton,	1,041,500,000	07	72,905,000
Rice,	103,040,500	03	3,091,215
Sugar,	324,940,500	06	19,496,430
Silk cocoons,	404,000	2 00	808,000
Hops,	1,510,972	10	151,097
Beeswax,	766,530	22	168,636
Honey,	22,995,900	10	2,299,590
	Gallons.		
Molasses,	13,000,000	25	3,250,000
Wine,	152,175	1 00	152,175
Pasturage, value of			20,000,000
Value of straw, chaff and residuum of the crops,			74,000,000
Value of pasturage after the crops are taken off,			7,500,000
Products of Orchards.	Dollars.		$838,163,928
Value of in 1840,	7,256,904		
Increase 22 per cent,	1,596,518		8,853,422
Products of Gardens.	Annual value estimated at $15 per garden.		
Number estimated at 3,000,000,			45,000,000
Products of Nurseries.			
Value of in 1840,	593,534		
Increase 22 per cent,	130,577		724,111
Live Stock and its products.			$54,577,533
Sheep—number in 1847,	25,000,000		
Estimated value of lambs and mutton sold,			12,500,000
Wool—pounds,	60,000,000	30	18,000,000
Neat cattle—number in 1847,	18,265,334		

Articles.	Quantities.	Prices.	Value.
Increase and value of cattle sold for beef,			40,000,000
Swine—number in 1847,	35,000,000		
Two-thirds slaughtered annually, say 23,000,000, valued at five dollars each animal,			115,000,000
Horses, mules and asses—number in 1847,	5,289,516		
Value of increase (labor not estimated)			7,934,250
Poultry, value of in 1840,	$9,344,410		
Increase 22 per cent,	$2,055,770		11,400,180
Eggs, number consumed,	1,037,320,000	half cent.	5,186,200
Live geese feathers, pounds,	2,000,000	50	1,000,000
Products of the Dairy.			
Value of in 1847,	33,797,008		
Increase 22 per cent,	7,433,141		41,220,149
			252,240,779
Products of the forest, including lumber, furs and skins,			21,599,628
Fire wood—number of cords,	25,000,000	1 50	37,500,000
			59,099,628
Products of the fisheries, including whale, cod, and all others,			17,069,262
Capital employed in Commerce, Trade, and Internal Transportation,	$390,972,423		
Profits at six per cent,			23,458,345
Manufactures.			
Products—value of			550,000,000
Mines.—Products of, including iron, lead, gold, silver, marble, granite, salt, coal, &c. &c.,			74,170,530
Banking & Insurance.			
Bank capital,	$208,216,000		
Capital of insurance companies,*	Not known.		20,000,000
Money loaned at interest, profits of			25,000,000
Rentals of houses and lands,			50,000,000
Professions, profits of			50,090,000
Total,			$2,013,779,975

* Capital of insurance companies in Massachusetts in 1847—

Marine and fire (with specific capitals) aggregate,	$5,825,000	
Do. do (mutual) assets,	1,230,182	
		$7,055,182
In New York in 1845—		
Marine and fire (with specific capitals) aggregate,	7,267,000	
Do. do. (mutual) assets,	4,405,478	
Insurance and trust companies,	5,000,000	
		16,672,478
Total,		$23,727,660

REMARKS.

GENERAL OBSERVATION.—In estimating the value for 1847 of several of the articles in this table, the amount as given by the census for 1840 is assumed as the basis, and 22 per cent. added to that sum, which is the ratio of the increase of population during the last seven years, it being reasonable to suppose that the value of the industry and capital of the Union has increased in proportion to the increase of population. Political economists assume that the population of a state, without regard to age, sex, or condition, serves to indicate, more truly than any other basis of calculation, its productive power.—*See the Madison Papers, pages 28 to 30.*

There being no satisfactory data for some of the estimates contained in this table, they are very probably above or below the real truth. But imperfect as they are, they may enable others to make nearer approximations to the true quantities or values.

The estimates of the quantities and value of hemp, flax, hops, beeswax, molasses, wine, products of orchards and nurseries, are all based upon the census of 1840, allowing 22 per cent. for increase. A little over 45 gallons of molasses are allowed for every 1,000 lbs. of cane sugar. The census of 1840 contains no return of honey. Bevan, in his work on the Honey Bee, estimates 30 lbs. of honey for each pound of wax produced. On that basis we have made our estimate.

The estimate for straw, &c. is made upon the following basis, viz:—$4 worth of straw is allowed for every 30 bushels of English grain, and $1 of fodder for every 20 bush. of Indian corn. An intelligent farmer of Delaware (John Jones, Esq.) estimates $8 worth of straw for every 30 bush. of English grain, and $1 of fodder for every ten bushels of Indian corn. In the French tables the straw and residuum are put down at about 11½ per cent. on the whole value of agricultural products and products of the forest. A less proportion is allowed for pasturage after harvest than in the French tables.

GARDENS.—In the United States, particularly in the country, every family has a garden. It is believed that three gardens to every four families will not be an unreasonable allowance for the number, and $15 per garden for the value of the products.

The business of wool-growing being considerably increased in Ohio, Michigan, and other western states, a larger increase than 22 per cent. is allowed to the number of sheep.

Number of neat cattle in 1840,	14,971,586	
Increase 22 per cent.,	3,293,748	18,265,334

The value of the increase and number of cattle sold for beef, in the absence of satisfactory data, must necessarily be a rough estimate.

Pork Trade.—In consequence of the great increase of the pork trade in the United States, a larger increase than 22 per cent. is allowed for the number of swine. As swine are usually slaughtered at the age of eighteen months, we have assumed that two-thirds of the whole number are slaughtered each year.

Horses, &c.—Whole number in 1840,	4,335,669	
Increase 22 per cent.,	953,847	5,289,516

An increase of three per cent. per annum, gives 158,685 animals, worth $50 per head.

In the "Journal d'Agriculture Pratique et de Jardinage" it is estimated that each of the inhabitants of the city of Paris consumes 138 eggs per annum. It is probably very much above the actual number consumed. We have, in our estimate, allowed 50 eggs for the consumption of each individual of the population of the United States, each year, and estimated their value at half a cent each egg. Of the quantity of feathers produced in the United States, we have no information. We put the item in because it exists, hoping hereafter to obtain satisfactory information in relation to it.

There are more than 4,000,000 families in the United States, allowing 5 persons to a family. Allowing six cords of fire wood to a family would give about 25,000,000 cords. It is probably very much below the actual consumption.

Capital, &c.—Based upon the census of 1840.

The estimated amount of capital for 1847, is the amount for 1840, as appears by the census tables, with 22 per cent. added.

Manufactures.—A little more than 22 per cent. added to capital of 1840, in consequence of the expansion of the manufacturing interest in the southern and western states.

Mines.—Census of 1840 the basis, with such corrections as the latest returns authorize.

The last four items are crude estimates, there being no satisfactory data on which to found them. In Great Britain the rentals amount to about £65,000,000 or $315,000,000.

There are in the U. States probably 10,000 lawyers, 15,000 physicians and surgeons, 20,000 clergymen of all sects and religions, besides editors, professors of science, belles letters, arts, music, school teachers, &c. &c. But there are no satisfactory data from which their aggregate incomes can be calculated.

Thus it appears that the aggregate amount of the products of labor and capital in the United States, in 1847, was $2,013,779,975, if the estimates in the preceding table are correct. It is proper, however, to remark that, in the census of 1840, among the statistics of manufactures, the following items appear; viz: Mills and the articles produced, $76,545,453; houses, $41,917,401; ships, $7,016,094; manufactures of cotton, $46,350,453; manufactures of wool, $20,696,999; house-hold goods, $29,025,380. From the items enumerated it is apparent that a large portion of the aggregate value of manufactures produced in the United States, consists of raw material, which has been included in the census statistics, as well as in our estimates, in other forms, and should therefore be deducted from the aggregate amount. It is believed that the cost of the raw material is equal to one-half, at least, of the whole value of the products of manufactures; the other half representing the wages of labor and the profits of capital. Having been estimated in other forms, it is proper that it should be deducted from the general amount. One-half would be $275,000,000; thus showing the grand aggregate of the products of the labor and capital of the United States, in 1847, to be $1,738,779,975.

Table exhibiting an estimate of the population and property (real and personal) of each state and territory of the United States, in 1847.

States and Territories.	Population including free and slave.	Amount of property real and personal per head.	Total amount of property, real and personal, of each state and of the United States.
Maine,	600,000	400 dollars.	240,000,000
New Hampshire,	300,000	" "	120,000,000
Massachusetts,	850,000	" "	340,000,000
Rhode Island,	130,000	" "	52,000,000
Connecticut,	330,000	" "	132,000,000
Vermont,	302,000	" "	120,800,000
New York,	2,780,000	" "	1,112,000,000
New Jersey,	416,000	" "	166,400,000
Pennsylvania,	2 125,000	" "	850,000,000
Delaware,	80,000	" "	32,000,000
Maryland,	495,000	" "	198,000,000
Virginia,	1,270,000	" "	508,000,000
North Carolina,	765,000	" "	306,000,000
South Carolina,	605,000	" "	242,000,000
Georgia,	800,000	" "	320,000,000
Alabama,	690,000	" "	276,000,000
Missi·sippi,	640,000	" "	256,000,000
Louisiana,	470,000	" "	188,000,000
Tennessee,	950,000	" "	380,000,000
Kentucky,	855,000	" "	342,000,000
Ohio,	1,850,000	" "	740,000,000
Indiana,	960,000	" "	384,000,000
Illinois,	735,000	" "	294,000,000
Missouri,	600,000	" "	240,000,000
Arkansas,	152,400	" "	60,960,000
Michigan,	370,000	" "	148,000,000
Florida,	75,000	" "	30,000,000
Wisconsin,	215,000	" "	86,000,000
Iowa,	130,000	" "	52,000,000
Texas,	140,000	" "	56,000,000
District of Columbia,	46,000	" "	18,400,000
Oregon,	20,000	" "	8,000,000
Total,	20,746,400		$8,298,560,000

The following is the principle upon which the table above is constructed. We have obtained the valuations of real and personal property (upon which the taxes are assessed) in the states of Pennsylvania and Ohio, for 1847, and that of New York for 1846. To the latter we have added three per cent. being the ratio of the increase of population. Making this addition to the valuation of New York, the following are the amounts for the three non-slaveholding states above named, viz:

States.	Valuation in 1847.	
New York,	$634,977,913	
Pennsylvania,	465,789,951	
Ohio,	409,897,379	
		$1,510,665,243

As the valuation of property with a view to the assessment of taxes is at least 25 per cent. below its actual value, we add to the above sum one-fourth part or 25 per cent. in order to get at the true amount of property real and personal in the three states above named, which is, 377,666,310

Actual amount, $1,888,331,553

The population of the states before mentioned, according to our estimate of population submitted with the crops, (for which see *ante*,) is as follows; viz:

	Population.	
New York,	2,780,000	
Pennsylvania,	2,125,000	
Ohio,	1,850,000	
		6,755,000

Dividing the aggregate amount of property by the aggregate population of the three states, and the result is $279 69¼ per head.

We have also the valuations of two slaveholding states, Kentucky and Maryland, for 1846. They are as follows, viz:

	Valuation in 1846.	
Kentucky,	$242,388,967	
Maryland,	177,555,846	
		$419,944,813
To this sum we add three per cent., the ratio of increased population, in order to bring it up to 1847, which is, - - - - - -		12,598,344
And twenty-five per cent. for under valuation, as in the case of the three free states, which is		108,135,789
Making in the whole		$540,678,946

The population of Kentucky and Maryland, in 1847, according to our estimate, is as follows, viz:

	Population.	
Kentucky,	855,000	
Maryland,	495,000	
		1,350,000

Dividing the aggregate amount of the property by the aggregate population of the two states last mentioned, we have $400 for each individual.

Now, it cannot be supposed that the assessors of taxes in the states of Kentucky and Maryland, have over-estimated the property to be taxed. And admitting that they have not under-estimated it, the result would give a little over $320 per head of the population.

Adhering to our belief that property in the states of Kentucky and Maryland would be as likely to be under valued for taxation, as in the states of New York, Pennsylvania and Ohio; but believing that, in consequence of slaves being subjects of valuation and taxation, more property is visible and therefore more readily assessed than in the three last, we adhere to the allowance of 25 per cent. for under-valuation. We therefore, take for the basis of the table above, the sum of $400 and apply it to the population of the whole union. The result is, $8,298,560,000

We think it will not be contended that the amount of property, per head, is less in the free than in the slave states. On the contrary, it is probably more, and making a reasonable allowance for the difference, we believe we may safely estimate the property personal, real, and mixed, or the aggregate capital of the United States, in 1847, at $10,000,000,000.*

In reference to the table above it is proper to remark that we have no means of separating the real from the personal property, and therefore have made no distinction between them in our estimates.

BANKING SYSTEM OF PENNSYLVANIA.

From the Philadelphia Bulletin.

A friend has placed in our hands the May number of "the Banker's Magazine," a most respectable periodical, in which the editor has done us the honor to copy our remarks, made in the Bulletin some time since, relative to the monopoly system of banking which exists in this State, and the free system of Rhode Island, in which we gave a decided preference to the latter. The able editor, in giving place to our observations, says, however, that he must not be understood as sustaining those views. He continues: "Our columns are open to a liberal discussion of the comparative merits of the banking systems of the several States, with a view to elicit correct views and sound opinions from those who have reflected upon these subjects.

"The bank capital of Rhode Island is large when compared with Pennsylvania, and its proportion of circulation to population is much greater.

	Population.	Banking cap'l.	
Pennsylvania,	1,800,000	$17,000,000	or 9 to 1
Rhode Island,	130,000	11,000,000	84 to 1

* In the free states there is more concentrated capital than in the slave states—in other words more money invested in stocks, merchandise, banks, insurance companies, loaned at interest, &c. In these forms it is to a great extent invisible, and out of the reach of the assessor of taxes. Whereas, in the slave states, the capital consists in real property and in slaves, which are visible and tangible, and cannot be concealed from the assessor. These facts account for the apparent fact that the proportion of capital in the slave states, is more per head than in the non-slaveholding states.

	Circulation.	
Pennsylvania,	$11,000,000	or $6 to 1.
Rhode Island,	2,800,000	21 to 1.

"Pennsylvania is better adapted for bank circulation, as all agricultural States are, the population being extensively diffused, and less facilities for concentrating bank issues at one place."

We do not know that we understand the precise drift of the above remarks, but suppose them meant to imply that the banks of Rhode Island are relatively more expanded than those of Pennsylvania, inasmuch as the circulation of the former banks bear a ratio 3½ times as great to the population of the State as that of the banks of Pennsylvania. But it seems to be quite lost sight of that while the ratio of circulation is 3½ times as great, the ratio of capital is 9¾ times as great as ours. We may observe that the expansion of the banks of a State is to be determined, not by the ratio of circulation to population, but by the ratio their circulation and other demand liabilities bear to their capital.

Our object in making the comparison we did between the workings of the different systems in the two States, was to show the insufficiency of the banking capital of this State as compared with the amount of business transacted, and the consequent insecurity of our currency, and harassing alternations of abundance and scarcity of money to which our merchants and traders were thereby subjected. This we accomplished by placing the operations of the Pennsylvania, or monopoly system banks, in broad contrast with those of the Rhode Island, or free system banks, for the years 1845 and 1847.

In the comparison thus drawn we showed that while the capital of the Pennsylvania banks exceeded those of Rhode Island but about $6,000,000, the oscillations of the former, within the two years stated, had amounted to more than *twelve and a half millions*, whereas those of the latter had been less than *one million and a half*. We showed that the total movement of the Pennsylvania banks was 317 per cent. on their capital, whilst that of the Rhode Island banks was but 53 per cent.! and that whilst the former draw interest on investments to the extent of 136 per cent. beyond their capital, the investments of the latter amount to but 50 per cent. beyond their capital! We further showed that in 1847, the circulation and deposits of our banks amounted to $29,215,925, and those of the Rhode Island banks to $3,925,997, being in the ratio of one to nearly eight, while their capitals were in the ratio of one to one and a half; and that the bank currency of Pennsylvania in 1847 was $4,278,000 more than in 1846, while that of Rhode Island varied in the same period but $130,000; and that the result in Rhode Island of banking with actual capital was to restrain the profits of the business for that year to an average of about six per cent., whereas our system of banking, chiefly on credit, because of the insufficiency of our capital, led to vast overtrading by the banks, and to their dividends reaching in the same year from seven to fifteen per cent., averaging from 8 to 9.

In view of these astounding results, we denounced the monopoly system of banking in this State as unwise, and urged the superiority of a freer system which should invite capital into that employment, so that there should be actual money to lend and not merely credit which should pass for money because of the talismanic power given to it by our laws.

We believe every point made and every position assumed by us in the above article to be sound.

In reply to the strictures of the editors of the Bankers Magazine, we have to state, that bank circulation is, of necessity, in the ratio of the exchanges effected by the population among whom the institutions are placed. The exchanges of a manufacturing population, where sums of money are constantly passed from hand to hand, and raw materials transmuted into fabrics of greatly enhanced value, cannot but be much more numerous than those of an agricultural population of equal number. The farmer who cultivates two hundred acres of land, and raises wheat, rye, corn, hay, &c., sees and needs but very little currency. If remote from a town, whilst he feeds his family upon the products of his garden, his poultry, pigs, &c., at the nearest village store he obtains his groceries, articles for clothing, and other matters, all of which are furnished on credit, and settled for, in most instances, as may suit his convenience, by means of a portion of his crops. His wants of currency, it will be seen, are exceedingly small. Not so with the manufacturer. His family cannot eat his cotton and his wool; he has nothing to pass off for his necessities in the way of barter; the storekeeper with whomhe deals, whatever credit he may give him, expects payment in cash or bank currency when his account is settled. Thus it is obvious that a cotton mill employing two hundred operatives, will require more currency than a thousand small farmers and their families. Where there are the fewest banks in proportion to a business population, there will be the largest circulation; and for this reason every trader and mechanic requires currency with which to purchase the articles in which he deals, and if no bank is close at hand he must retain in his own possession an amount beyond his immediate wants. These individual reserves form the most important portion of bank note circulation.—Where banks are convenient to the residences of traders and mechanics, all surplus funds are left in their keeping. The man who can put his money in a place of safety, and get whatever portion of it he wants *when* he wants it, will hardly risk keeping it about him.

Thus it will be seen that the requirements for currency in Rhode Island are far greater than in Pennsylvania; and that, as nearly all the population of the former State are engaged in avocations requiring its constant use, it is only because of her numerous banks and their proximity to every man's door, that the ratio of circulation is not far greater than has been stated. And we trust we have made it clear in this hurried article, that the ratio of circulation to population in our own State, which is essentially agricultural, though numerically smaller, is in a politico-economical sense much larger than that of Rhode Island, and that the assumption that an agricultural State is better adapted for bank note circulation than a manufacturing one, is essentially erroneous.

We trust too, that our readers will admit that the ratio which circulation and other immediate liabilities bear to bank capital, is the true light in which this subject should be viewed, so far as regards the solidity of the institutions, and the convenience of the public. Much more might be said to illustrate the propriety of the ground we have taken, but we have not the requisite space at our command now.

COMMERCE OF NEW YORK.

Imports for the first six months of 1846, '47, '48.

	1846.	1847.	1848.
FREE GOODS.			
January	$376,905	$478,443	$400,829
February,	474,360	285,128	141,359
March,	1,092,476	786,937	2,199,749
April,	2,228,878	1,987,033	475,314
May,	1,300,751	738,755	1,283,754
June,	1,239,006	401,358	525,088
Total,	$6,712,376	$4,677,654	$5,026,093
DUTIABLE GOODS.			
January,	4,842,884	5,499,682	9,104,104
February,	4,177,952	5,889,387	9,566,859
March,	8,657,793	6,060,746	5,971,601
April,	4,105,393	8,339,429	6,639,716
May,	4,160,360	5,868,261	5,087,279
June,	4,605,527	6,689,109	4,718,404
Total,	$30,549,909	$38,346,614	$41,087,963
SPECIE.			
January,	43,221	90,874	48,032
February,	96,779	1,235,122	49,502
March,	62,225	1,329,458	22,781
April,	106,544	3,397,064	165,919
May,	27,286	1,326,697	133,922
June,	29,122	547,813	69,532
Total,	$365,177	$7,927,028	$489,688
CASH RECEIVED.			
January,	1,471,844	1,434,836	2,305,017
February,	1,255,651	1,496,716	2,416,497
March,	2,608,734	1,652,092	1,553,003
April,	1,373,752	2,109,404	1,686,506
May,	1,268,952	1,487,173	1,312,036
June,	1,462,098	1,460,017	1,143,497
Total,	$9,441,031	$9,640,238	$10,416,556
Average rates of duty,	30 7-8	25 1-7	25 1-7

The exports from New York for the six months ending July 1st, were as follows:

	Dom. mdse.	Free.	Dutiable.	Specie.
January,	2,456,615	4,496	222,689	1,183,517
February,	1,977,428	15,540	432,909	433,226
March,	2,184,194	99,639	215,490	452,507
April,	2,271,800	80,961	225,068	1,186,422
May,	2,248,009	180,755	35,954	2,249,253
June,	2,198,150	90,354	66,922	1,871,972
Total, 1848,	13,336,196	471,765	1,199,023	7,370,897
" 1847,	24,417,473	428,031	627,353	687,403
Decrease,	11,081,277			
Increase,		43,734	571,670	6,683,494

THE CANAL BANK—*Legal Proceedings.*—The commissioners appointed by the Comptroller to examine into the affairs of this institution have not yet completed their investigation. On Friday and Saturday the teller of the bank was examined under oath, in the presence of the Attorney General.

On Saturday, we hear, an application in the nature of a creditor's bill was filed by Julius Rhoades, Esq., of this city, praying for an injunction, and that ex-chancellor Walworth be appointed receiver of the assets of the bank. The Attorney General appeared on behalf of the State, to oppose the appointment of such receiver, and after hearing him the judge granted the injunction, but referred the designation of receiver to Judge Harris, before whom the parties met this morning.—*Albany Argus, July* 17.

THE BANKS OF PENNSYLVANIA.

The aim of the writer of the article in a preceding column appears to be, to show that the banking system of Pennsylvania, owing to legislative action and monopoly, is inflated and unsound when compared with Rhode Island and other States—that Pennsylvania exhibits at one period much more extensive bank operations than at other periods—and that its circulation and loans are too large.

It is not fair to compare such a large State as Pennsylvania, having a scattered population, with a small one like Rhode Island, having its population concentrated. If the comparison be made, as it should be, between Pennsylvania on the one hand and the New England States at large with a like population on the other, it will be seen that the system of the former is not so expanded as at first appears.

The point of difference between them is that Pennsylvania has not so much capital as New England. We know that there is more wealth and more activity in the latter. But the business of a State or a city is not in proportion to its banking capital. This is seen in contrasting the two cities of Providence and St. Louis. The first with a banking capital of eight millions; the second with only six hundred thousand dollars, and a population 200 per cent larger. Yet the latter doing a much larger business and with larger bank deposits than the sixty-two banks of Rhode Island combined.

Pennsylvania has a population equal to all the New England States together, (Maine excepted,) but its circulation less than half, and its specie larger than the others. This is shown by the following tables from recent official reports:

	Population.	Capital.	Circulation.	Deposits.	Specie.
*New England,	1,735,000	$54,000,000	$28,000,000	14,000,000	$5,100,000
Pennsylvania,	1,725,000	21,500,000	13,000,000	15,000,000	†7,300,000

* Maine excepted. † Including Treasury Notes.

These figures certainly indicate that there is less inflation in Pennsylvania than New England. Yet attempts have been made to reduce the banking capital of Pennsylvania and thus force it into other channels, or into other States. The veto of the governor upon the bill for rechartering the Farmers and Mechanics Bank, and other banks, will, if sustained by future legislation, force these banks into liquidation, and lead so much capital to other places. Philadelphia at present has only one half the banking capital of New Orleans, and about the same amount as Charleston; but the legislature, which should encourage the introduction of capital from abroad, is, on the contrary, doing all it can through one of its parties, to lessen or drive away a

portion of the fixed capital of the State. The leading party in Pennsylvania would force stockholders to be liable not only for their own capital invested in bank stock, but for double the amount. In other words, a stockholder in a bank to the amount of five thousand dollars would, in the event of its failure, not only lose his own stock but be lialble to the amount of five thousand dollars more, for the debts of the bankrupt institution.

Capital should be untrammeled in its operations, and when once fixed in certain channels, should not be disturbed by fickle legislation. Capital, like water, will seek its level and be placed where it is wanted, and where it can operate advantageously. Banking should be conducted upon the same principles as any other well regulated business. It is regulated and controlled by the laws of trade; a sound banker is or should be governed by the same rules which govern every well managed counting room. His obligations are based upon a fair capital and upon bona fide business paper, and his cash liabilities are never disproportioned to his cash resources.

The writer in the Evening Bulletin would make it appear that the people of Pennsylvania suffer from the continued oscillation of their banks. Now this cannot be proved by figures. We have examined their tables for 1845 '46 and '47, and they show a remarkable evenness of liabilities and resources, viz:

	Capital.	Circulation.	Deposits.	Loans.	Specie.
Nov. 1845,	$16,154,600	$10,107,000	$13,700,000	$27,000,000	$5,800,000
" 1846,	20,994,700	10,681,000	13,100,000	28,000,000	5,700,000
" 1847,	21,585,700	13,737,000	15,000,000	32,000,000	7,300,000

The *apparent* increase in the bank capital arises in the addition of the Girard Bank to the list between November, 1945, and November, 1846. The capital is reported in the legislative returns at five millions, when in fact it was less than one million. The year 1847 was one of great activity, especially in the grain growing States, and the demand for circulation was larger upon legitimate grounds. The increased amount of specie was in itself a fair basis of further bank issues, and the wants of the community, under the largely increased foreign trade, demanded further bank loans. With an increased circulation of three millions, and deposits of two millions, the banks were justified in adding four or five millions to their line of discounts. We do not consider the increased aggregates as anything else than as exhibiting an even policy on the part of the banks.

The banks of New England generally feel themselves authorized to issue as much circulation as their capital amounts to. Those of Connecticut are allowed to issue fifty per cent. more than their capital, (see page 180, Vol. 1,) and they would no doubt avail themselves of their chartered privileges in this particular, if the business wants of the community demanded it.

The bank circulation of the whole country is about 40 cents per dollar of capital; but in many States it bears a larger proportion. It will be seen that the bank issues of Pennsylvania are far from being as large as those of several others, viz:

	Capital.	Circulation	Coin.
Ohio,	$5,700,000	$8,300,000	$2,600,000
Virginia,	10,500,000	9,300,000	2,990,000
Kentucky,	7,000,000	6,400,000	2,900,000
Pennsylvania,	21,500,000	13,000,000	7,300,000

These were the tables of six months since, and although they may vary from the present condition of the same banks, yet they approximate the truth sufficiently to sustain the opinions we have expressed. EDITOR BANK. MAGAZINE.